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LEGISLATION.

Principles of Political Wisdom, or a selection of One hundred political Laws and Precepts, collected from the works of Pythagoras and his Disciples.—Translated from the Greek, by BENJAMIN FRANKLIN.

THE following precepts have been selected with care from among more than one thousand, scattered in the works of the most eminent philosophers of the school of Pythagoras, to whom we are indebted for them.

They apply with peculiar energy and propriety to the circumstances of the United States, which are not far removed from the political situation, exhibited by the Grecian Colonies of Magna Grecia or South Italy, at the period that Pythagoras became their Legislator, about 25 centuries ago. The political and moral laws of this wise philosopher were adopted by the powerful cities of Croton, Metapontus, Rhegium, Locrium, Tarentium, &c. in Magna Grecia, which flourished under a strong confederation, as long as they were observed, and until conquered by the overbearing power of the Romans. These laws were also established in Lucania by Zaleucus, at Catanium and Agrigentum in Sicily, by Charondas and Empedocles, among the Getians and Thracians, by Zamolxis, and among the Scythians by Abaris.

Pythagoras was one of the greatest Legislators of antiquity. His laws carried to a high degree of prosperity all the cities and Republics, by which they were adopted. When Rome established the laws of the twelve tables, many of the laws of Magna Grecia were incorporated therewith, and the Athenians had such a respect for them that they were introduced in their sacred hymns.

Political wisdom is older that we are generally aware of: it is believed that this ancient system of republican wisdom has never been published (at least in this shape) in our language. It may therefore appear a novelty to most of our readers, although it dates from such an early period. The truths contained in these short and impressive precepts ought never to be forgotten by our enlightened patriots and well meaning statesmen. We find in them, the first principles of many modern improvements in Legislation, which after having been out of view for ages, have been again brought to light by benevolent and eminent Legislators; and our own may yet

learn some important lessons from an attentive perusal of them. The brevity, perspicuity, and evidence of these precepts, will render them easy to be remembered and applied, under our various political circumstances. If their spirit were to be infused in our minds, the happiest results might follow, and they would inspire us with a generous zeal for the happiness and prosperity of our country and mankind; nay, with the means of realizing the most sanguine wishes that such sentiments might suggest.

B. F.

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1. This world is but an atom, a small rolling ball. Let the plurality of worlds teach us humility.

2. The most powerful nation is but an ant hill, a bee hive. There is room for many on earth.

3. It is madness to dispute and fight for a few acres of ground, or for an unjust superiority. Let justice prevail.

4. The greatest enemy to political happiness is exclusive property.

5. Every man is owner of himself; but the sun, the heavens and the earth belong to every body.

6. All political evils flow from partial properties, in bad hands.

7. Let permanent properties be abolished, and war, ambition, avarice, will cease to exist forever. Limit these evils.

8. All men are equal. No man is exactly similar to another; but he is worth as much. This is natural equality.

9. But all civil societies have restricted this equality. These restrictions are unnatural.

10. The wise man is above the fool, the powerful man above the weak, the rich man above the poor. When there shall be no fools but idiots, no weak men but sick men, and no poor at all, real equality will be established.

11. Old age is the natural magistracy. Experience is its supporting staff.

12. The Legislator of mankind, ought to be the echo of reason and truth. It is better to instruct mankind than to deceive them.

13. If he labours for glory, let us forgive him. If he labours for gold, let us despise him. If he labours for the sake of truth, let us praise him and believe him.

14. Till the ground. Nature says to the bird, fly; to the fish, swim; but to man, plough.

15. Let the laws rule alone. When weapons rule, they kill the law.

16. Justice must be the base of all laws. It shines every where like the beams of the sun. Injustice is the bane of the laws.

17. Truth and justice ought never to be veiled, in the laws.

18. Let passions and properties be restrained: who has little, wants much; who has much, wants more.

19. There can be no Republic, where the fear of punishment is the only restraint on crimes.

20. Do not prescribe laws to commerce. It can bear them no better than the waves over which it is wafted. Freedom and trust are its pillars. Do not pull them down.

21. Nations, confederate. You will become stronger. Union, strength.

22. When Kings form coalitions, Republics must form confederations: They will prevail, unless corruption destroy them.

23. The people want work and bread, work to procure bread, and bread to sustain life and labour. Give them both.

24. Let the needful wants of the people be provided for. What, liberty without the staffs of life? an empty name.

25. Beware of Corporations. They are the cancers of society.

26. Let us be cosmopolites until we meet with a wise nation and good laws; but then let us become citizens.

27. Let it be said of you—That nation is not a monarchy, nor is it a republic; but it is a happy nation under wise laws.

28. Do not suffer among you, men of mere pleasure nor men of mere toil, let each have a share of both.

29. Shut your ears to those who speak of your rights, without mentioning your duties; they are your enemies.

30. Do not carry the love of equality so far as to forbid one man's being wiser and more virtuous than another.

31. Freedom is the gift of God, do not restrain it beyond measure.

32. All men were free, when the voice of nature told them, grow and multiply, live and be happy.

33. Agricultural nations! have no slaves among you; the earth is a free gift of God, and must be tilled by free hands.

34. Beware of political anarchy, incapacity and luxury, they produce political discord, misery and ruin.

35. Beware of a government where the head is to be feared and the body to be pitied.

36. What is the sign of the best and wisest government? when the worst members obey the best.

37. If your orators speak of equality, but neglect to speak of justice, compel them to hold their tongues.

38. Families and small nations are good; but large societies are often bad; yet do not despair of mankind; direct them to truth and justice: they mend all evils.

39. Where there is inequality of wealth, it is almost useless to speak of equality of rights.

40. All laws, even the best, are fetters; do not multiply your fetters; a crowd of laws smothers liberty.

41. If you want to be equals, be all equally just: otherwise there is no lasting equality, and no social stability.

42. Beware of national glory; the martial laurels dispel the lightning, but attract the thunder of envy.

43. Beware of the drunkenness of liberty, it is worse than that of wine. Liberty is the sister of sobriety.

44. Wise laws are better than mere liberty. Men must have laws.

45. The despotism of genius, reason, wisdom and virtue, is the father of real liberty. People honor that father.

46. Let your laws be your walls: let nothing be above them. Be their slaves rather than their masters.

47. Liberty said once to the Law, you clog me: the law answered to liberty, I preserve you.

48. Have few laws, many cannot be equally good. Have no useless laws, it is better perhaps to have one less than one too much, since it teaches to neglect them.

49. Nations! be not ungrateful; do not persecute your great men during their lives; it is poor amends to raise them statues after death, as you always do.

50. Gold and silver are the causes of all crimes; do without them, if you can.

51. Let all your magistrates be husbands and fathers.

52. Beware of permitting a small evil, even with the view of producing a great good.

53. It will be time to let the people know their rights, when they will practise all their duties.

54. A monarchy without a King, or with the law for King, is the best form of government.

55. Republicans! beware of names and titles, a ruler is always a King, whatever be his title, and many Kings are worse than one.

56. Let all the citizens have a field or a share of its produce.

57. Who refuses to work, is unfit to live; but lest men should die, compel them to labour.

58. There are many kinds of la-

bour. The labours of the head are not less needful than those of the hands. Let each labour in his own way.

59. Opinions ought not to be laws, much less should prejudices.

60. Who ought to make the laws? the most able and wisest citizens.

61. Tell to conquerors how many worlds there are to conquer.

62. Beware of the three P's, the People, the Prince and the Priest, lest the People should neglect thee, the Prince oppress thee and the Priest impose upon thee.

63. Do not allow every one to guide the helm of state; it is not given to all to attempt it, since it requires the knowledge of universal wisdom.

64. What is the most perfect political consonance? the harmony of laws.

65. When the law speaks, let the people be silent.

66. Such laws, such people. Good laws make good citizens.

67. Beware of a great population, unless you can educate all your children in wisdom and justice. Think betimes of your posterity.

68. A great population of vicious men, is a hive of mischief.

69. Beware of conquests, they are social robberies.

70. Let experience be the mother of the law, and example her husband.

71. Let each citizen have his daily wants, or the means and security to obtain them.

72. If you want to reform your manners, apply to the women for advice.

73. Cursed be the Republic or the King, who, takes away the child from the father, the daughter from the mother; whatever be the motive: It is a crime.

74. Do not divide what God unites. Families are sacred unions.

75. Beware of electing for magistrate, a man, who cannot rule in his family, or is despicable in any way.

76. If you want real equality and liberty, do not allow wealth and poverty. The poor are the slaves of the wealthy.

77. Live in peace with your neighbours. War is a fever, which often leads to death.

78. All nations are equal, the earth on which they live is round, in order to prevent any pretext of precedence.

79. Enact a law to enforce respect for old age, and let the day which completes the centenary of a man's years be a day of rejoicing.

80. Let all your laws be short, and easy to learn. Long laws clog the memory or furnish evasions. Do not change your laws like your coats.

81. Let there be a law, to punish those who availing themselves of the silence of the laws, indulge in crimes which they do not forbid.

82. The slave who sleeps, dreams, perhaps, that he is free: Do not awake him unless you mean to make him such.

83. The citizen who has lost his reputation, or committed a crime, must lose also his elective right.

84. Let punishments be proportioned to crimes, and mild.

85. Do not murder your criminals. Fathers do not kill their sons for mere disobedience!

86. Beware of expediency, it is the sister of injustice.

87. Be faithful to treaties; no victory can remove the shame of a broken treaty.

88. Let nations supply each other with the superfluity of their fields and of their industry. They are brothers.

89. Do not suffer too many dogs in a house, nor too many soldiers in a republic, lest they become your masters.

90. Never make war, except for self defence, or for a just cause, and make peace as soon as you can. You will acquire the glory of justice.

91. Do not allow every idle orator to speak to the people, the people is often a weather cock.

92. Put vice out of the reach of men. Prevent crimes: it is better and easier to prevent them than to punish them.

93. Nobody becomes fit to be a Legislator, until after having travelled, or learnt the good and evil of different nations.

94. If you wish to enact lasting laws, you must consult the wants of men: a law lasts as long as it is useful.

25. Watch over the law but do not touch it.

96. It is not sufficient to be virtuous according to the law: the law cannot say every thing.

97. Useful labour is industry, useless labour is luxury. Industry must be promoted, luxury must be discouraged.

98. Do not despise other nations, else you will be despised by them. They are your equals. Avoid national jealousies, they lead to war.

99. Beware of national vanity: do not swallow the bait of flattery, else you will be an easy prey to your foes. Friends do not flatter.

100. Nations! do you want to know your friends? they are those who tell you the truth in spite of national pride and prejudices. Truth enlightens every thing; it ought never to offend nor dazzle.

ETHICS, OR MORAL PHILOSOPHY.

The Moral Decameron, or Principles of Moral Conduct—A selection of Moral Precepts, translated from the Greek of Pythagoras and his Disciples, by Benjamin Franklin.

THE moral laws of this eminent school of philosophy, which I have undertaken to collect and translate, will not, I trust, appear less valuable than its political laws. They breathe throughout the purest spirit of christian benevolence, active charity and deep wisdom. The impressive manner in which these fundamental principles of morality are conveyed and inculcated cannot fail to please and convince. They may easily be learned and remembered by youth, and lead maturity and old age to an increase of wisdom.

Some of these precepts are so obvious, so well incorporated with christian ethics and the popular proverbs of many countries, that they might be deemed superfluous; but it is never needless to repeat wholesome truths, and it may perhaps be interesting to know at what an early period they were promulgated among heathens.

After perusing them with attention, no one will doubt that Pythagoras was, like Solomon, one of the most worthy men of antiquity. After having undertaken extensive travels to collect truth, and having been initiated to the wisdom of ancient Egypt, Persia, India, &c. he came to reside in the Grecian colonies of Italy, and was the founder of one of the best and most extensive schools or sects of philosophy; its influence has been great (and is not yet destroyed) over the minds of men, and it deserved this fate, by its salutary tendency, notwithstanding the absurd opinions which were erroneously attributed to it. B. F.

Part I.—General Precepts.

1. Do not allow thy body, to become the tomb of thy soul.

2. Do not treat any one, even a beast, as thou wouldst not like to be treated.

3. Do not despise any one, nor any thing that casts a shadow.

4. Send thy wishes to the school of need.

5. Return gratitude as soon as possible; but lose its remembrance as late as possible.

6. Take perfection for thy aim, yet without flattering thyself to reach it.

7. Think freely, and tell freely thy thoughts.

8. Shut thy mouth, if thou hast nothing good to say, or as soon as thy heart is shut.

9. If any body strikes thee, tell him, my brother, I pity thee!

10. Walk straight on the line of good, evils lay on either side.

11. Mistrust every thing, but despair of nothing.

12. Be the last to know all thy worth, and learn it without pride.

13. In doubt, forbear.

14. Be the echo of no one, except of wisdom and truth.

15. Curtail thy thoughts and thy words, they will be stronger.

16. The heart is fragile, it must be sustained. Women are weak, because they depend too much on their hearts.

17. Flatter neither the living nor the dead.

18. Be not liberal at the expense of justice.

19. Words are the shadow of actions. Act, if thou pleasest without speaking; but do not speak without acting.

20. Speech is a holy thing; but thought is still holier.

21. Measure thy desires, weigh thy opinions, reckon thy words.

22. Thought is a holy action, do not disturb the meditation of any man.

23. Beware of pride, but think highly of thyself; thou shalt not fail in self-respect.

24. Use with sobriety of yes and no, prefer to say perhaps.

25. Do not deny reason to beasts. If they could speak!

26. Reckon no one above thee, unless he is better than thee.

27. Defend the truth, but do not revenge it.

28. Do not judge a man when he is angry, nor when he is in love.

29. To see well, we must not see too much or too long.

30. Seek utility, let superfluity seek thee. Beware of luxury.

Part II.—Behaviour.

31. Swear by thy father, it is a sacred oath: the curse of heaven will fall on its perjury.

32. Let thy heart be sober as well as thy mouth, if thou wishest to live long on earth.

33. Avoid anger, it is the earthquake of man; it destroys his frame.

34. Be a sponge when wisdom speaks, and a sieve when fools are talking.

35. Avoid debts, except those of gratitude, and pay them in due time.

36. Dispute without spite, else they will think thee in the wrong.

37. In the morning, ask thyself, what have I to do? In the evening, what have I done?

38. Do not leave for the night, the work of the day. Thou dost not live to work; but thou must work to live.

39. Spend only one-fourth of thy life in sleep, a sleeping man is the brother of a dead man.

40. Repair before night, the evils committed during the day.

41. Do not fast; be sober, in every thing, at the table, in bed or at study.

42. Beware of wine, it is the milk of the passions. Let it alone.

43. Forget the injuries thou receivest: remember those thou hast done.

44. Let no one master thee, and do not master any one.

45. Speak little and speak not of every thing nor to every one.

46. Avoid laughing, or causing merriment, at the expense of an hon-

est man, even if he should be ridiculous.

47. Do not laugh before those who weep; misfortune is a serious thing.

48. The care of health is a duty, when the body is sick, the soul suffers.

49. Avoid secrets, they teach dissimulation or compel perjury, and they break the chain of human connexions.

50. Do not hurt men nor beasts; they have souls like thee.

51. While proceeding through life, sow good actions on thy road; thou shalt be able to look behind thee with pleasure.

52. Live well and thou shalt live long.

53. Speak ever the truth, without minding what will follow; but do not betray thy father, nor thy friend, nor thyself to the wicked.

54. Assert by mere numbers, there is nothing more certain.

55. Feed on vegetables, they will not bloody thy mouth nor thy heart.

56. Open thy door to the orphan and to the stranger.

57. Open thy heart to the widowed heart.

58. Help the needy; thou may stand in need thyself in a short time.

59. Receive in thy house the dog who has lost his friend.

60. Do good and thou shalt reap good.

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Part III.—Happiness.

61. Build thy happiness on few things, and jealousy will not reach thee.

62. Do not run after happiness. It is at home; remain there.

63. Pleasure is not happiness. Happiness may do very well without pleasure: yet they are twins.

64. Happiness lays between wisdom and imagination.

65. It is impossible to be happy alone. Happiness is a twin. Take a wife or a friend.

66. Do not wish wealth, it would produce poverty somewhere. But ask for happiness, there is enough of it for every body.

67. Be good, thou shalt be happy. Be wise, thou shalt be happy a long while.

68. Thou wilt know that thou art happy, when thou findest thyself at home in thine own heart.

69. To live long and happy, walk always between fear and desire.

70. Happiness consists in being in harmony with one's self.

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Part IV.—Wisdom.

71. To become wise, begin early.

72. Philosophy is the love of wisdom, or a passion for truth.

73. The philosopher shall withdraw himself from civil discords, and contemplate the skies; there is no discord there.

74. Listen and thou shalt be wise. Silence is the beginning of wisdom.

75. Do not complain of the frequent wanderings and long errors of Genius, they result from wisdom in active fancy, and truth under the shadow of error.

76. The wise man does not drink wine, nor pleasure; he tastes them.

77. Wise man! beware of habits, they soon become necessities.

78. If thou writest a book, do not make it from other books alone.

79. If thou wishest to live after death, leave a good family, a good fame, and a good book.

80. Give thy leisure to the muses, the arts and the sciences, they are the toys of wisdom.

81. Praise a man after death; not in his lifetime; but do good to him while he is alive.

82. Know how to name every thing, it is the principle of science. Know how to value every thing; it is the foundation of wisdom.

83. Be a philosopher: without

wisdom life is but moving vegetation.

84. Infancy is the season of weakness and excites pity. Manhood is the season of strength, and of the crimes which follow it. Old age is the season of impotence and of the woes arising from it. Weakness, strength and impotence are then the materials of human life. Pity, crimes and woes are its results! Let us be wise.

85. Mature thy thoughts, and do not publish immediately these which flow from thy pen.

86. Use well the present time. The knowledge of the past or the future is not worth the good use of the present.

87. Keep an account of thy faults. Memory is apt to fail in that case.

88. Endeavor to make reparation follow thy faults, as quickly as thunder follow the lightnings.

89. The really wise man, is such, through pure love of wisdom, and not to deceive or acquire favour or fame, although they may follow his steps.

90. Do not believe thyself wiser than another, it would prove thee less so.

91. Be amiable and wise at once. The sight of an amiable philosopher is one of the finest among mankind.

92. Let wisdom be thy profession, it is an easy one.

93. What do the wise require? Their wants are bread and milk, fruits and water, a roof and a coat, a friend or a wife, a book or a lyre.

94. What is wisdom? the science of order.

95. Wisdom procures every comfort or teaches to do without them. Is it not the same?

96. Do not ask wealth, rank, a long life, a good wife, or even health; ask wisdom: it procures the equivalent.

97. Prefer order to method. Method renders a man learned; but order teaches wisdom. Be wise first and learned at thy leisure.

98. Do not become proud of thy wisdom: it has its own reward.

99. Exercise thy thoughts. The works of man crumble to dust; but his thoughts are permanent, when written in the hearts of men.

100. Thoughts nourish words, words must clothe thoughts. Put them together on leaves; they will be perpetual.

101. Wisdom is the touchstone of truth. Truth is the food of wisdom. Wisdom is greedy of truth, it starves without it.

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Part V.—Virtue.

102. Do not wait for old age to marry virtue: she is handsome and ever young, she may reject thee if thy courtship is too late.

103. Acquire the property of virtue, it is an estate which is easily carried about. No earthquake, no lightning, no fire, no inundation can deprive thee of it.

104. If good is more difficult to follow than evil, yet try to follow good, if it was merely for the pleasure of overcoming a difficulty.

105. If good is as easy to perform as evil, follow good, thou couldst not have any excuse to do otherwise.

106. If good is easier to perform than evil, or more advantageous, none but a fool will prefer it.

107. Endeavour during thy whole life, not to be virtuous, just and wise in mere appearance; but in reality.

108. Limit thy zeal, but not thy love, for knowledge, truth, justice, wisdom and virtue.

109. The greatest problem of wisdom, is to transmute the passions into as many virtues. Try to solve it.

110. Love truth and virtue, and thou shalt find them.

111. What is virtue? Wisdom in action.

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Part VI.—Love and Friendship.

112. Reason says to man, Love thy parents, thy wife, thy chil-

dren and thy friends, as much or more than thyself. They need it.

113. When they are dead, love them as if they were absent.

114. Choose betimes a wife and a friend. Life is short and love is sweet.

115. If thou art unable to find a friend, seek a fellow sufferer, and soothe your mutual grief, in speaking of what you fail to have or procure.

116. Get a friend, in order that somebody may have the right to tell thee thy faults and defects.

117. Honor the places (and keep holy the days) where thou wast born, hast taken a wife and found a friend.

118. Love is a holy thing, do not speak lightly of it.

119. Get a partner: the journey of life is safer and more agreeable, when it is performed by two in company. Do not travel alone from the cradle to the tomb.

120. Take a wife or a friend, or both: a solitary existence is an imperfect life.

121. Do not become the friend of a negligent man, he will neglect thy friendship.

122. Do not judge rashly of thy friend, nor of thy wife.

123. Let not trifles destroy thy love, unless thou hast no defects whatever.

124. Do not become the enemy of the man, who ceases to be thy friend.

125. Look upon thy enemy as a mislaid friend.

126. Write the faults of thy friend on the sand.

127. Remain in the crowd of society, until thou hast found a wife and a friend; but no longer.

128. Consult the sympathy of souls in the choice of a wife and a friend.

129. Young man! Among all the women, there is one which will be thine; look for her, and secure her as soon as found.

130. What is friendship? the sympathy of souls.

131. What is love? the sympathy of hearts.

Part VII.—Marriage.

132. Husband! be the shield of thy wife.

133. Wife! be the comfort of thy husband.

134. Beware of the woman who disguises herself, even if it is to please thee.

135. Take a wife, of whom it may be said, he could have chosen a handsomer, but not a better one.

136. Happy possessor of a lovely woman, remember that women are weak, remove from her any thing that might make her fall.

137. Do not marry a rich wife, thy children would be enemies of labour.

138. The wife shall have no other friends than her husband's.

139. Let the wife become the sister of her infirm husband, and let the husband become the brother of his infirm wife.

140. Do not marry a woman taller or wiser than thyself.

141. Let no one know the defects and blemishes of thy wife, but thyself.

142. Do not raise thy hand over thy wife: whoever strikes his wife strikes himself.

143. If it be thy wish to live in harmony, take a wife proportionate to thyself in every thing.

144. Wife! love thy husband as thyself: mother! love him more than thyself: widow! love him whom thou hast lost, as an absent husband.

145. Prefer in a woman, wit to beauty, grace to wit, amability to grace and virtue to amability.

146. Do not flatter thyself to be much beloved by a woman who is in love with herself.

147. Choose thy wife, do not buy her.

148. Do not speak ill of women, they deserve our indulgence.

149. If thy wife give thee some real motive of displeasure, treat her as thou wouldst treat thy eldest daughter.

150. Young man! throw a glance over all the flowers which thou meetest, but choose only one and put her to thy side.

151. Do not wait for the day after thy wedding, in order to become acquainted with thy wife.

152. Remember that every thing changes through nature, the wife of to-morrow will not be like the wife of yesterday.

153. Wife! in the midst of thy domestic cares, be always cheerful, lest thy husband should repent having become the father of a family.

154. Choose a fair and placid day for thy wedding, in order to be able to say, my wedding day was one of the finest of my life.

155. Wife! do not scold thy husband; if some upbraidings have escaped thee, wash thy mouth with thy tears. Fear to become a widow before his death.

156. It is not enough for a wife to love her husband; she must love no one else, but consider all other men as her brothers.

157. Do not believe that thy husband alone must bear the burthen and toils of life. Each sex has its share. Comfort him when he suffers for thee.

158. Wife and mother! let order reign in thy household, order is the finest ornament of a house.

159. Let the eyes and the smiles of thy wife be thy guide.

160. Wife! do not attempt to rule thy husband, advise him; but let him decide, and submit to his will.

161. Have no secrets for thy husband: refuse to hear those which are to be concealed from him.

162. If it is thy wish to keep thy husband at home, endeavour that he should find no where else, as much amability and modesty, mildness and tenderness.

163. To possess forever the heart of thy wife, never speak to her in anger.

164. If thou dost not wish to lose the heart of thy husband, forbear to be always in the right with him.

165. Do not marry a child: unripe fruits are sour.

166. Endeavour to show thyself to thy husband, as virtue, having assumed the shape of a woman, to please him more.

167. Do not neglect thy duties, because thou art faithful to thy husband; a single defect tarnishes many virtues, a single virtue does not balance many vices.

168. Wait in silence and calmness the return of an unfaithful husband, grant him his pardon with smiles, receive him as returning from a dangerous journey.

169. Obey thy husband, read in his eyes the unwritten law which thou must follow.

170. Be a dutiful wife, and let not thy heart wander from thy husband.

171. Cherish thy wife; honor the mother of thy children.

Part VIII.—Women.

172. Women! do not follow the steps of man. Do not become masculine.

173. Be always sweet and modest, chaste and graceful. To please men you must always be women.

174. Prefer the white colour to every other; a woman dressed in white is the emblem of purity.

175. To render virtue more amiable we suppose that she is a woman. Show yourselves worthy of this homage, which is the most flattering that could have been offered to your sex.

176. Men is the happiness of woman; but woman is the pleasure of man. Pleasure and happiness are brothers.

177. Beware of every angry or strong passion. Nothing makes a woman uglier than anger and jealousy.

178. Do not pretend to rule over the minds of men, be satisfied with a sweet influence over their hearts.

179. Innocence is a rose, it can be plucked but once:

180. If thou art in the right with thy father or thy husband, do not compel them to acknowledge it, let them render thee silent justice.

181. Women are flowers, do not judge of either by mere sight: the lily and the garlick look alike at a distance.

182. Praise only the dead, and women.

183. What stands above a beautiful woman? a woman beautiful and modest at the same time. Modesty is the complement of merit.

184. Beautiful and wise maid! let thy mother reap the praises which thou must receive; since thou art indebted to her for thy birth and education, from which arise thy beauty and wisdom.

185. Reserve for the women, all the occupations which do not require much strength, much courage nor much prudence.

186. Do not despise an old woman: the wrinkles of her face bear witness to her good conduct in the spring of her life.

187. Women! keep your promises, the slightest perjury spoils the prettiest mouth.

188. Women! speak with wisdom and grace, your personal defects will be concealed or will not be perceived.

189. Women ought not to be allowed to speak in public: they are out of their sphere in a crowd, their place is in their household.

190. Beware of a mere beautiful woman, it is a coloured statue. Remember Pygmalion, hast thou his talent and dost thou expect a miracle?

191. The face of a woman is only handsome, when it indicates and expresses a fine soul. The face is the mirror of the soul.

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PART IX.—EDUCATION.

192. Gold is malleable at all times; but the mind of a man only in his youth. Parents! begin early to mould it.

193. Pardon thy child if he confesses his fault, or if he conceals it; but not if he denies it.

194. Make a man of thy boy, a woman of thy daughter.

195. Mother of a family! let thy eldest daughter share with thee the cares of the education of thy last born, let her prelude under thy eyes to the sacred duties of maternity.

196. Let those who have lost their children or never had any, adopt the children who have lost their parents.

197. Love thy parents as much as thyself; but love justice above all.

198. Young man! begin to study with the morning light. Knowledge is the dew of the soul.

199. Young man! fill thy mind with useful knowledge. Let a crown of budding ideas adorn thee, as a crown of rose-buds adorns the maid.

200. Young man! before teaching thy mind and clothing thy understanding, teach thy eyes to see well. The art of perception must precede the art of conception.

201. Parents! never allow yourselves to bring shame on your children. Teach them all their duties by your own example.

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PART X.—OLD AGE.

202. Take care in their old age of those who have given thee birth, and have brought thee to maturity.

203. Respect and venerate old age. Honor the white beard and the wrinkles of a bald head.

204. Old men! do not complain of your caducity, all fruits must become ripe and wither.

205. Respect the dead, do not set on their tombs; who would have dared to set on their beds when they slept?

206. They were preparing thy cradle some days before thy birth, prepare thy tomb some years before thy death.

207. Do not complain of the shortness of life; there are as many men who die too late, as men who die too soon.

208. In dying leave no other debts, but those of gratitude.

209. Do not fear death, but fear ignorance; it is the real moral death. How many dead among the living! The common death is only a removal.

210. Respect the wrinkles of old age, they are the seat of experience.

211. Old men! do not crown your heads with roses, the season of snow is not the season of roses.

212. Let us venerate the fine old men. A handsome and healthy old age is commonly the reward of a good life.

213. Young men! hold your tongues, when an old man speaks.

214. In your difficulties, ask the advice of old age.

215. Take care of thy parents in their old age, even if they should have been compelled to neglect thee in thy youth.

216. Do not praise youth, in the presence of a morose old man.

217. Young man! if an old man calls thee, come to him, even if thy sweetheart was waiting for thee.

218. Give every where the supremacy and precedence to old age.

219. Do not disturb an old man, who is enjoying the remains of his days.

220. Conceal your life if you want to live long; but if you have lived long conceal yourselves no longer.

221. The experience of old age belongs to the public, it is the milk of the law. B. F.

METAPHYSICS.

Theory of the Creation or Emanation of Beings, &c.

EXISTENCE is the actual reality of every thing.

Nothing can exist without possibility, efficiency and manifestation.

Possibility renders existence possible, the efficient course brings it forth, and it is manifested by its reality.

Whatever has existence is a Being or Entity. Things are the results and attributes of Beings.

There are two modifications of existence, the ESSENCE and SUBSTANCE, which form two categories of beings. We cannot conceive of any other within the bounds of existence.

The ESSENCE is necessary, eternal, efficient, primitive, essential, general, supreme, immense, emanating, immutable and unic.

While the SUBSTANCE is willed, created, deficient, secondary, substantial, particular, dependant, definite, emanated, mutable and multiple.

The ESSENCE and SUBSTANCE have each a two-fold principle, and each principle exists under triplicate modes or manifestations.

The two essential principles are the DIVINE ESSENCE and the IDEAL ESSENCE.

10. While the two substantial

principles are the SPIRITUAL SUBSTANCE and the MATERIAL SUBSTANCE.

The three manifestations or modes of the DIVINE ESSENCE are POWER, LOVE and WILL. They are GOD, the Divinity or the Divine Trinity. And all three are ONE.

The three ideal manifestations or modes are Truth, Time and Space. They form the Ideal Trinity, three in one.

The three spiritual manifestations or modes are Angels, Souls and Motors. They form the Spiritual Trinity.

And the three material manifestations or modes are Ether, Light and Matter, which form the Material Trinity.

The totality of Beings, Entities and Things, form the Universe or PANCOSMOS. All what is!

This Universe is unic. It is an effect. Its efficient cause is in itself. That cause is GOD or the DIVINE ESSENCE.

GOD is not out of the Universe, since beyond it, is nought.

Nought being a nullity, without possibility, efficiency or manifestation, cannot exist any where, nor hold any thing, nor be acted upon. It is the opposite of reality and existence.

The substance was created by emanation from the essence.

20. GOD or the DIVINE ESSENCE is pre-existent. He is all-mighty by his POWER, ever-loving by his LOVE, self-active by his WILL and eminent in every attribute.

The Ideal modes of the essence, are the shadow or the coeval principles of the Divinity; but the whole is one.

Truth is the reality of existence, Time is the succession of existence, Space is the locality of existence; but GOD is the source of existence.

LOVE is the prompter of POWER, and WILL the exertion of POWER. Divine impulse is their mutual action.

The spiritual and material substances have emanated from GOD, by his POWER, prompted by LOVE and exerted by WILL.

Somewhat like thoughts and actions emanate from spiritual substances, or light and heat from the Suns, or numbers and fractions from unity.

This emanation was a creation, because it gave rise to the multiplicity.

We create our ideas, although they emanate from our souls. The substantial beings are the thoughts of the SUPREME BEING!

They expand through the sphere of existence by irradiation, and fill its immensity by succession.

The thoughts of the Divinity are formed by Monads and Atoms, somewhat like our own result from the union of letters and words, or may be ultimately reduced into them.

30. Monads are the elements of the spiritual substances: they form the everlasting thoughts of GOD or his written ideas.

Atoms are the elements of the material substances: they are the evanescent thoughts of GOD or his speech.

Spirits or spiritual substances result from the close union of monads, and bodies or material substances are formed by the aggregation of atoms.

Words are formed by letters, numbers by cyphers, letters and cyphers by lines, and lines by dots or points.

Dots are therefore the first elements of our thoughts.

Monads are spiritual dots, or identical unspread points.

Atoms are material dots or unequal spherical points.

The spiritual monads are everlasting, inseparable, indivible, unextended, unshaped, soft, intelligent, free-acting and active.

The material atoms are evanescent, separable, insecable, extended, shaped, hard, unintelligent, passive and inert.

Monads and spirits are not out of space, since space is an attribute of existence; but they do not hold any peculiar space.

40. Spirits and bodies are often united, forming mixed beings, or mixed bodies.

They may be compared to paintings; the shapes and colours belong to the material bodies; but the meanings and names are their spiritual substances.

There are three spiritual modes, scales or stages of existence.

Angels rank in the highest order and dwell near the Divinity.

There is perhaps as much diversity among them as in material beings, and some may be clothed with an etherial body.

Souls, animate men, animals and the inhabitants of the numberless worlds circulating through space.

Motors, direct worlds, plants and other apparently inanimate bodies, throughout their lives.

Material existence has also three modes, stages or scales.

Ether is the thinnest and first stage of atomic combination; it forms etherial substances and bodies invisible to our eyes.

Light is a visible substance, medial between Ether and Matter; it modifies into electricity, calorie, colours, &c. It is imponderable and radiating; its atoms are perhaps elastic.

50. Matter is well known to form all the material visible bodies; its atoms must be spherical, yet insecably solid.

It is absurd to consider Matter as indefinitely divisible. This can only be done by a false abstraction of the mind, enlarging the size of the elementary atoms.

If atoms were considered as they really are, impereeptible, excessively minute and insecable, no such imaginary division could take place even in our mind.

Words are not composed of an indefinite number of letters, nor letters and lines of an indefinite number of points.

The atoms of matter combine or congregate gradually into elements, molecules, particles, fragments, parts, organs, fluids, bodies, limbs, plants, animals, men, globes, suns, &c.

And after their appointed period of existence, they dissolve gradually by a separation of parts or dissolution of agregation.

The spiritual and material substances and beings are the atmosphere of the Divinity, which they surround as the light surrounds the sun.

The Universe is the great universal sphere or O.

GOD is the great unity, inclosed within and every where.

All other beings are the fractions, cyphers and numbers, emanating from the unity, without end or limits.

60. But truth, space and time are co-existent with GOD.

GOD is the real necessary being; truth or reality, exists therefore necessarily with him from all eternity.

GOD is every where; therefore every place has existed with him.

GOD has been from all eternity; an eternal duration of time is then a consequence of his existence.

All the divine faculties and attributes are also co-existent with the Divinity.

The ESSENCE is immutable and neither loses nor acquires.

But the SUBSTANCE and every thing belonging to it, has been created or emanated in time and succession, by the Divinity.

Actions and motions are results of Divine impulse.

Emanations and impulsions are either direct or indirect.

They are indirect, when the Divinity communicates to the created beings, the faculties of emanation, and impulsion.

70. Spiritual substances have received the power to produce spontaneous ideas. This production is a creation or emanation.

They have also the power to propel and direct material bodies. This power is an impulsion.

They are eminently active. Their activity arises from the Divine impulse, and produce a multitude of actions and motions.

Good and bad actions result from their free behaviour and spiritual liberty.

The good actions are virtues, the bad ones are vices. Morality is their rule and judge.

Ideas or thoughts are permanent or evanescent, good or bad, active or passive, real or fictitious: they prompt the will to action.

Faculties emanate from substances by actions and motions.

Motions arise from impulsions, emanating directly or indirectly from the Divinity.

Spiritual substances have a self-impulse derived from their creator; but bodies are inert, unless impelled by spirits.

Shapes, forms or appearances are the only essential results emanating from material substances or bodies. Size is their consequence.

80. Life is the result of the union of spiritual and material substances. Without such a union there is existence, but no life.

This union is the result of a mutual attraction derived from a divine impulsion. Death follows their division.

After their death or separation, spirits having acquired a new tendency or impulse, by the modification produced by behaviour, unite with another body, and begin a new life.

Spiritual affinities are directed by moral laws. Virtues and vices modify the spirits and diversify their election, selection or capacity for another body and life.

Virtuous spirits are improved and impelled towards a better body and state of existence. The reverse happens with vicious spirits.

Worlds, such as moons, planets, comets, suns and stars are animated and propelled by spiritual motors.

They have had a beginning, an increase, and they must die or dissolve like all other material bodies.

But who will dare to calculate the extent of their lives? Centuries are for them, mere days, hours or minutes of existence: yet what is their life compared to eternity!

Ether and the fluid of gravitation, emanate from the central worlds, which must rule over the stars.

Light, heat, electricity, &c. emanate from the stars and suns.

90. Air, gazes, vapours, &c. emanate from the planets and comets.

Transpiration, breath, aromes, &c. emanate from men, animals, plants and minerals.

Creation, emanation, evolution, production, &c. are synonymous terms to express the same thing, the action by which a thing comes out of another or a different one.

Creation by nothing is a nullity or impossibility.

Creation from nothing is possible. The fictions of our imagination are such, and many of our ideas likewise.

Formation, modification and manipulation, apply to the process of changing or modelling a substance.

When similar things are produced from each other, it becomes a re-production, propagation or generation.

Separation, division, dissolution, &c. imply the action of a disintegration or diminution of parts.

Aggregation, congregation, cristalliation, organization, &c. imply on the contrary, an addition, or combination of parts.

The action of God upon substan-

ces, has been called impulsion, influx, grace, promotion or providence.

100. God acts upon every thing directly or indirectly.

He is the Almighty! yet he cannot destroy nor change himself: nor will he ever change the eternal laws which he has once established in his wisdom.

Two and two will ever be four. The parts will ever be smaller than than the whole. A circle will never be square.

Lexington, October, 1820.

Impulsion and repulsion, attraction or gravity, action and motion, are different names for a single effect, divine impulse.

But when it evolves different moral and physical phenomena, we give it these names and many others.

Bend your knees, proud mortals! All things emanate from God.

And every thing has existence or life, by the power, love and will of God.

LEIBNITZ.

ASTRONOMY.

Enquiries on the Sidereal, or Upper Spheres;

By Prof. C. S. Rafinesque.

1. THE numberless discoveries of Herschell, who has been so properly called the *Columbus of Heaven*, the bold surmises of Lambert, and the various calculations and theories of a crowd of eminent Astronomers, have raised the science which they cultivate, to a proud station among all other natural sciences.

2. But notwithstanding the immense labours of so many learned men, there are yet many obscurities in our knowledge of heavenly bodies. It can hardly be otherwise, while we cannot reach with our sight, even when improved by the use of the most powerful Telescopes, a multitude of worlds, invisible through their distance or darkness, and while so few years have elapsed, since so many have been brought to our notice.

3. It will require many centuries, before we can verify and ascertain the revolutions, sizes and powers of the spheres lately discovered, or before we can so far improve our instruments, as to render them fit to penetrate and lead us into the remotest and darkest recess of material expanse.

4. Meantime, those who have the needful knowledge and sagacity, ought to lead the way, by enquiring into the possibility of further researches, and evince a judicious foresight, by anticipating what will be revealed to, or ascertained by, future generations. It has already happened many times that the boldest and most incredible predictions in natural sciences, have shortly after been proved and demonstrated.

5. Soon after Lambert had foreseen the true system of the universe, Herschell ascertained a great number of his conjectures. Twenty years after Lavoisier had announced that the Earth would be found to be Metallic Oxides, Davy proved that such was the fact. Thus science does anticipate its own discoveries.

6. Far from ranking myself a-

mong the number of those worthy practical astronomers, from whom so much may be expected, I merely claim a slight knowledge with the theories and results of their practical observations; but notwithstanding, I may attempt to convey a few hints, on some subjects hardly noticed by them as yet.

7. The Suns or stars of the visible universe, are scattered through the expanse of space in clusters, which have received the name of *Nebula*. The Galaxy or Milky way with all the unconnected visible stars, form the immense *Nebula* to which our Sun and planetary system belongs. Our *Nebula* has an irregular discoidal shape, and all the stars inclosed therein have a progressive circular or *peridiscal* motion.

8. The other *Nebulas*, of which about 2000 have already been seen, appear to us under a variety of shapes, and must be supposed by analogy to be somewhat similar to our own, although there is not in the skies, two things exactly alike, no more than on Earth, and all the possible variety of configurations and conglomerations consistent with motions may, and probably do, exist somewhere in the heavenly space.

9. The motions of the heavenly bodies are equally various, as their sizes, shapes, distances, clusters, &c. They differ in direction as well as velocity. Not long since it was supposed that all the planetary worlds were propelled in a mere elliptical orbit, and that the Suns and stars stood still, although they might revolve upon their own axis.

10. These ideas are now exploded, and a modern Newton is wanted, to delineate, explain and measure the complicated directions of the several series of worlds, revolving through space. None but the primary central spheres, revolving immediately around the CENTRAL THRONE OF THE ALMIGHTY, may have a pure circular motion: all the other worlds circulating or wandering round each other in alternate order, must perform complicated *spiral curves* through space.

11. We are unacquainted with the number of series of worlds, which may really exist: we cannot even assert whether these series are definite; but if we wish to begin the study of the highest, let us fix at present the number of series, and let us give them names with a definite application. This is always needful in order to afford a resting point to our memory.

12. Let us suppose that there are only seven series or orders of successive worlds, and let us call,

Moons or *Satellites*, the smallest and lowest order, which circulate round the Planets.

Planets and *Comets*, the second order, circulating round the Suns.

Suns or *Stars*, the third series, forming *Nebulas*, and revolving round the *Sideres*.

These three orders may form a peculiar class, and may be called *Asteroidal Worlds*; above them will exist a superior class which may be called *Sidereal Worlds*, and may contain the four following orders of revolving spheres.

Sideres or *Sidereal Suns*, which are not luminous, and rule over the Suns or *Nebulas*, while they circulate round the *Nephelias*.

Nephelias or *Nebular Suns*, which are luminous, surrounded by a Nebular atmosphere, and rule over the *Sideres*, while they revolve round the *Gravitals*; they are the source of electricity.

Gravitals or *Gravitic Suns*, which are not luminous, but the source of Gravitation and Ponderation, ruling over the *Nephelias*, and moving round the *Uranials*.

Uranials or *Etherial Suns*, which must be splendid and the source of Ether: they rule the *Gravitals*, and may be supposed to move in celes-

tial harmony around the THRONE OF GOD, the source of all light and motion.

13. If we consider the probable attributes of these successive series of worlds, we shall notice in the first instance, that the *Uranials* or most remote worlds, which we have been led to surmise, must be totally invisible to us, owing to their infinite distance, notwithstanding their etherial splendor. It is probable that the solidity of the worlds decrease in inverse ratio of their sizes and series, wherefore the Uranials would be composed of a very thin matter.

14. Their motion round the CENTRAL THRONE, may be various; but must be simple, and if we suppose it circular, we shall have a data from which to depart. As to their velocity, size and shape, all that can be rationally conjectured is that the whole, and every other property belonging to them, must be commensurate with, and adequate to, their high station in the scale of material bodies.

15. Striding from this etherial stage to our lower planetary station: we shall find the earth and her sister planets, endowed with a great solidity and opacity, surrounded by their moons or satellites, reflecting the light from the Sun, around which they revolve in elliptical orbits, &c. Their properties are so well known that it is useless to dwell on them; but I shall merely say something of their real directions.

16. The planets pursue generally an elliptical direction round the Sun; but since the Sun has a progressive motion round the *Sideres*, and these round the *Nephelias*, &c. This motion must be an *eccentrical spiral line*, revolving on its own plane and formed by the axis of the Sun's progressive direction.

17. But if we consider that the *Sideres* must also revolve, the *Nephelias* likewise, &c. carrying with them in their potent spheres of activity, the suns and planets; the spiral course performed by the planets will not be straight; but a compound curve, *Supraspiral*, and more or less complicated, according to the centre of action which is considered as the immovable focus.

18. It is now this supraspiral line, which remains to be calculated and fixed by the astronomers. It is not to be supposed that this may be done at once and thoroughly; but they may set or fix the elements of it, as soon as the orbit of the Sun will be ascertained; they may begin by ascertaining the real spiral course of the earth around our *Sidere*, and its supraspiral course round our *Nephelias*, &c. The courses of the other planets will be easily deduced gradually therefrom.

19. There are three kinds of Comets. The first kind are real Planetary Bodies moving round the Sun in very narrow and eccentric ellipsis. The second are Erratic Spheres successively attracted by different Suns, and falling for a while within their power of motion; but gradually repulsed out of it, I call them *Dromets*. While the third order are merely splendid solar meteors, appearing in the solar atmosphere, somewhat like the fiery meteors, appear occasionally in our own atmosphere, I call them *Tychomets*.

20. The Sun is not a globe of fire. It is a highly luminous sphere; but with a solid and opaque nucleus, much less solid however than the planets. Its spots must be clouds floating or fixed in its luminous atmosphere. It moves towards the constellation of Hercules; but this motion has not yet been accurately measured. The difference of his velocity compared with *Arcturus* a neighbouring Sun, has been however ascertained to be, about two hundred and forty millions of miles in one year.

21. We cannot expect to find with accuracy the real motions of the sun and stars, unless we detect the central *Sidere* round which they revolve; unfortunately for us, it is highly probable that the *Sidere* of our Nebula is opaque and not luminous; because it appears a general law of nature that opaque and luminous worlds should almost always move round each other in alternate succession. We cannot therefore perceive the centre of action of our Nebula; but by attending carefully or during a long while, to the respective and simultaneous motions of stars, we shall certainly be able at last to ascertain whereabout our centre of gravity lays.

22. Some stars of our Nebula are insulated and have large systems of planets and comets, such as our Sun, Syrius, Arcturus, &c. while others are clustered or approximated in various numbers, many of which, only two or three together. Our polar star is a double star. In this case it appears that the smallest revolve round the largest, and perhaps these revolving stars are peculiar luminous planets. I propose to give them the name of *Geophosies.*

23. It is in the works of Herschell that the multifarious sizes, distances, shapes, changes, colours, &c. of the stars, must be seen. He has opened to us a new world of worlds, and while he contends with probability that all the stars do not rule over planets, he has detected so many of these luminous worlds, that the most active imagination, is lost in astonishment and wonder.

24. But he has omitted to search for our *Sidere* and *Nephelias*, and when he found this last, he did not know him as such. Yet it appears that he perceived him as late as thirty years ago (in 1790.) This wonderful body has excited so little attention, that our books on Astronomy hardly mention him, and I can find no where, his true position in the heavens, although something is said of his singular aspect.

25. It has the appearance of a star of the eighth magnitude, surrounded by a faint luminous atmosphere, which is quite circular, having a diameter of three minutes. The *Nephelias* is perfectly in the centre. Herschell made many pertinent remarks upon this body; he concludes that it must be a central body which is not a star, or a star which is involved in a shining fluid of a nature totally unknown, and he inclines towards this latter opinion.

26. He says that the atmosphere of this *Nephelias*, is so diluted and faint, that there can be no surmise of its being formed of stars, or if it was, of what a size ought to be the central body in order to outshine them so strongly. But in the supposition of this aureole or coma being a luminous atmosphere, how can the light reach us from such an immense and wonderful distance? and why is the outward part as bright as the centre?

27. I wish to draw the attention of the astronomers upon this singular body, which I venture to consider as our *Nephelias*; they will be able to ascertain or destroy this opinion, by an attentive study of his elements and position; but many ages must elapse before our change of position towards him, may be detected and measured.

28. I consider this *Nephelias* as an immense central Sun, highly luminous and electrical, ruling over all the visible and many invisible *Nebula* or *Galaxies*, and surrounded by a very dense atmosphere of light, in which are floating a crowd of small luminous satellites or starry moons; this is the only way to account for the definite circular edge of this atmosphere, and its brightness at this incalculable distance.

29. In a late labour of Herschell upon the *Nebula*, (of which I have

only seen an extract) he distinguishes different kinds of them, and he contends that besides the real *Nebula* formed by a conglomeration of stars, and assuming a cloudy appearance, there are *Milky Nebula*, and *Aureolar Nebulas*, besides Nebular stars, comets and planets.

30. This view is connected with the cosmogonal opinions which he has lately published, supposing that all the heavenly bodies have been, and are yet, gradually formed by the condensation of a luminous nebular matter scattered through space, and which lays in different stages of condensation, from the thinest cloudy veil to the most solid and opaque planet.

31. It is not my intention at present to enter into the discussion of this new cosmogony. I must reserve it for another time. But I merely mean to suggest that all the appearances of *Nebulas* to which Herschell has given names, connected with his cosmogony, might be with great plausibility, considered as mere diversities of phasis assumed by the Nebula, owing to their distance from us, position, size and approximation of their stars.

32. The Aureolar Nebulas are those which assume the nearest similarity to the *Nephelias*; but they are instead of single bodies, conglomeration of stars, whose light is so much condensed towards the centre, by the central approximation of stars, that there is only a thin part in the circumference forming the Aureole.

33. There have been already about 2000 Nebula observed, the nearest to and most remarkable after our own, is the Nebula of Orion; they assume a great variety of shapes, which are probably owing to their relative situation towards us: since such clusters of revolving starry clouds, must be acted upon by the laws of motion and gravity, and gradually assume a cylindrical or spindle shape, next an oblong one, or a spherical one, which must in the course of time or increased velocity become flattened on the sides or even discoidal; our own nebula or galaxy has already experienced this latter change of form.

34. Perhaps there are several *Nephelias* within our sphere of vision, and all the *Nebulas* which we see do not revolve round our own *Nephelias*; this must be inquired into, and we must endeavour to name and class accurately all the *Nebulas* belonging to our Nephelic system, or to any other.

35. All the *Nephelias* with their Nephelic satellites and Nebulas, must revolve round the next order of Upper Spheres which I propose to call *Gravitals*, because I consider them as the source of Gravity. These enormous bodies are probably not luminous and therefore out of our visual reach.

36. I presume that the Gravital Spheres are formed by a condensation of the gravitic fluid, which emanating from them as light does from the Sun, or rather magnetism from a load-stone, pervades the whole Universe, sustaining, balancing, propelling and directing in their various courses, the numerous heavenly bodies under their influence; while the etherial fluid has emanated from the *Uranials* and the general impulsion of motion from the CENTRAL THRONE.

37. I mean to explain at another time, my views upon the general system of the Universe or rather the principles by which the motions of all the heavenly bodies are directed, in their various spiral tracks through space. Meantime I shall conclude by inviting my readers to adore the OMNIPOTENT HAND, which has created so many worlds, without shrinking under their relative insignificance and nothingness, remembering that we form also an important link in the chain of universal creation.

Transylvania University, 22d Oct. 1820.

METEOROLOGY.

Letter on Atmospheric Dust, addressed to Governor DE WITT CLINTON, *Albany.*

DEAR SIR,

I published in 1809 some ideas upon this subject, in the American Journal of Science; an anonymous reply to my remarks, has since appeared in the same Journal, which is calculated to mislead; and as I have not been able to avail myself of the same vehicle, in order to state more fully and explain the motives of my belief in the atmospheric spontaneous production of a great part of the dusty particles floating in the air, I take the liberty to address you some additional remarks on this subject, which should my conjectures prove correct, will form an important link in the economy of nature.

The anonymous writer contends with the generality of authors, that these dusty particles are altogether lifted by the winds and carried every where. I do not deny that winds raise the terrestrial dust, and often carries it to a distance; this happens whenever the ground is dry and the winds blow; but I assert that it is impossible that this terrestrial dust should be raised above the clouds or when the ground being totally wet or frozen *cannot afford any.* Yet as a dust exists in the atmosphere as far as the clouds *at all times,* I venture to believe with Virey, Patrin, Delue and other philosophers, that there must be another independent formation of dust in the atmophere, besides the scanty terrestrial supply wafted by the winds.

To prove this assertion I need merely refer you to the observation of a very common meteoric phenomenon, which has seldom been noticed. Look at the clouds, towards sun rise or sun set principally, when the sun is concealed behind them, and an opening happens to take place, through which the sun may shine obliquely; a pyramidal beam will immediately appear, similar to the luminous and dusty beam appearing in a room into which the sun shines obliquely. This common occurrence has received the vulgar name of *Sun-beams*; but it is evident that it is not a mere beam of light, since it is not so bright nor dazzling as the bright sun rays, nor is it an optical reflection of the enlightened atmosphere, since it is brighter and not azure. It must therefore be a beam of atmospheric dust, and its identity with the beams produced by a hole in a screen or a window in a room is evident. If several openings exist among the clouds, many beams will be seen, and this phenomenon is sometimes visible without openings, when many clouds act as screens.

It remains to prove that this phenomenon happens when there can be no terrestrial dust in the air, else it would be contended that this dust rises (like balloons) to the clouds. Choose for your observation a short time after a long and heavy rain or snow, which must have precipitated all the terrestrial dust to the ground, and you will perceive the same *Sun-beams* under similar circumstances. Whence it must follow that this beam of dust must have preexisted above the sphere of the storm, and fallen since from above the clouds, and as it cannot be admitted with plausibility

that any great quantity of terrestrial dust can exist permanently above the clouds, so as to be able to form immediately such immense volumes of dusty beams, or rather to fill *all the space* between the ground and the clouds, I think it rational to presume that this atmospheric dust, is continually formed or evolved in the atmosphere, and falls down after the rain to fill the vacuum.

The insight given us by modern chemistry into the gaseous formations of solid substances, will be amply sufficient to account for this spontaneous formation. We know now that sulphurated arsenic and mercury, sulphur, muriate of ammoniae, &c. can be formed by the sublimation of gases, that smoke, soot, manna, volcanic productions, meteorolites, earths and even stones or metals, &c. may be spontaneously combined by a casual meeting or mixture of gaseous emanations. It is not therefore difficult to conceive how dusty particles may be formed in the great chemical laboratory of our atmosphere.

A singular instance of atmospheric formation, has been recorded in the travels of La Perouse. He saw, in a storm, on the east coast of Tartary, the actual formation of a number of slender threads, similar to spider webbs. The numerous instances lately ascertained of earthy rains, containing many oxides, come still nearer to the point; they only differ from the common dust, by their tenuity, colour, locality and composition. They are local phenomena and productions, while the atmospheric dust, is a permanent and universal phenomenon.

It is absurd to suppose that the atmospheric dust ought to have covered the earth with a coat or stratum 27 feet thick in 1800 years, as the annonymous writer wishes to suppose. Even if the average of dust falling in one century should be ascertained to be six inches, it must be remembered that the greatest proportion is precipitated by rains, diluted, and carried down the streams with the rain water; a small proportion alone is mixed with the soil and *increases its bulk*. It is only in hollows, caves, corners, pits, &c. that it may accumulate to a certain extent, and compression will greatly reduce it.

It is also absurd to ask whether this dust forms all the rocks and soils on the surface of the earth. But it is reasonable to suppose that it contributes to a certain degree to their increase. Our soil is formed by the decomposition of rocks, the accumulation of vegetable and animal decayed substances mixed with this atmospheric dust.

That it may in some instances form or increase substances and stony strata or conglomerations, cannot be denyed, since this effect takes place under our eyes in cisterns, and reservoirs of rain water. The earthy and dusty particles conveyed into them by the water are gradually deposited, forming concretions and stones. This is very evident in the old cisterns of the East which have held rain water during a long period of time.

Every thing therefore seem to indicate that there is an extensive and permanent formation (and fall) of dust in the atmosphere; that it contributes to form our soils, our alluvions and some stones; to fill the fissures and hollows of rocks and lavas, preparing them for vegetation; and that in former times, when many of our substrata were formed, it may have been more abundant, contributing to the formation of some of those strata.

This may appear paradoxical to some persons slightly acquainted with geological and meteorological phenomena; but not unreasonable to those who observe with care. I have ventured to announce in my lectures that another formation

must be added to our present geological formations, the atmospheric or meteoric formation, to which must be referred all those singular geological anomalies which puzzle so much the systematic writers, when they find extraneous stones, soils, metals and other substances mixed or superincumbent over late or newer formations. It may perhaps in time be found necessary to ascribe to meteoric formation, those extensive substrata and upper strata of sand and gravel, which cannot properly be deemed alluvial nor volcanic. When our rocks were formed under water by deposition, many of their principles must have originated in the briny ocean; but some may have been derived from the atmosphere.

Believe me, dear sir, respectfully yours, &c.

C. S. RAFINESQUE.

Transylvania University, 1st October, 1820.

PHYSICS.

On a New Property in Light, by Capt. FORMAN. *With Notes, by* C. S. RAFINESQUE.

IN an essay on that subject inserted in Tilloch's Philosophical Magazine, in 1820, (containing 16 pages.) It is contended that if there was no other light derived from a luminous body, beyond the primary rays reflected by that body, as all the philosophers have supposed, the greatest part of objects would be invisible, or at least only so much of them would be visible as reflected the rays into the eye by their proper angles, and whenever we turned our backs to the Sun (or a luminous body) as all the light would be reflected from and not into the eyes, we should be in darkness even at noon day.

It is not the atmosphere which reflects the light, else it would be white instead of blue.

The beams of light introduced in a dark room, cannot become visible by the reflection of the dusty particles of the atmosphere, since they would then appear as starry specks surrounded by darkness. (1)

There is only one principle that will account for the universal diffusion of light. (2) The particles of light the moment they are emitted from a luminous body, may emit other rays of a similar, but fainter character, these may emit others still fainter, and so on till the light is entirely dissipated.

By admitting this property in light, we have a principle by which we can account for a number of phenomena, which cannot be satisfactorily explained in any other way. For instance it will explain,

1. Why light from a distance is always fainter than when it proceeds from any thing that is near. An apple in the moon ought otherwise to be visible and as plain as in its planet, and the stars ought to be as bright as our Sun.

2. Why the stars are not visible in the day time, except from the bottom of a well or mine. Because their rays are not so scattered there as in the air.

3. What is the tail of a Comet. Comets are habitable worlds. (3) but must have a light of their own, perhaps equal to our twilight, to shine over them while they are so far removed from the Sun. Their tail is nothing else than a continuation of their Coma, which are rays of light proceeding from the Comet, in the same manner that the rays do from the Sun, but as the light of the Comets is only intended for their own use, it does not proceed in all directions; but in rays only. These rays when they first proceed from the Comets are close together, and to a certain extent, (the length of the Coma) in consequence of being so thick, send down a stronger light into our eyes, than the secondary rays of the Sun, and for that reason are visible: beyond that point, these rays by diverging as well as diminishing, become as faint or fainter than the Sun's; and consequently their light cannot be distinguished from his, except that part which is directly behind the Comet, for as the Sun rays are interrupted by the Comet, the whole space which the tail occupies, comparatively speaking, is in darkness, and the tail is visible because there is no other light to drown it.

4. What is the Zodiacal light? It is the Sun's secondary rays sending light down into the eye.

5. What is the cause of the twilight. No principle of refraction can account for it rationally, if the atmosphere reflects only the blue colour, an increased quantity of light, ought to produce only a more intense blue. It bears the greatest resemblance to the Zodiacal light, and is also derived direct from the Sun.

6. What are the causes of the Aurora Borealis? It is only a twilight attended with some additional phenomena, (4) arising from an increased density and elasticity in the atmosphere. The reason why light is more refracted in a dense atmosphere than in a rare one, is not because there is any refracting power in the atmosphere; but because by diminishing the velocity of light, in a great degree, it increases the power of the earth's attraction. (5) C. S. R.

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(1) And let me add would not be visible through a vacuum as they are.

(2) Perhaps there is another Does not the light reflect itself, by an elastic conflict?

(3) Some Comets are mere Solar Meteors, and so transparent that Stars have been seen through them.

(4) Perhaps some electrical ones, and the inflamation of gaseous emanations.

(5) This last explanation is not very clear; but the above theory of light, deserves attention; it ought to be studied under the various optical phenomena, and some experiments ought to be instituted to ascertain the possibility of its concordance with simultaneous refraction and polarisation of light, besides the inherent repulsion by the percussion of its particles. C. S. R.

Synopsis of some Discoveries on Heat, made in 1818.

Messs. Dulong and Petit have ascertained the expansion of Mercury and other fluids at very high temperatures, their memoir was rewarded by the Academy of Sciences of Paris. Mercury boils at 680 degrees of Farenheit. Air and Mercury expand equally up to 212; but unequally above that point: they have afterwards compared it with the expansion of solid bodies.

Dr. Ure of Glasgow has ascer-

tained the Dilatation and Elasticity of steam from 24 deg. up to 312, and compared it with Ether, Alcohol, Naphtha, Oil of Turpentine, &c. The Elasticity of steam is 0,170 at 24 deg.—0,200 at 32 deg.—30,00 at 212 deg.—and 167,00 at 312 degrees. They have also formed tables of the specific heat of solids at different temperatures, the latent heat of vapours, and the laws of cooling.

Heat sufficient to light tinder or above 600 deg. is produced by condensing suddenly Air to the fifth part of its bulk. Gay Lussac has produced cold to any degree by suddenly allowing condensed air to expand again to its original bulk.

Davy's lamp without flame, formed by a fine platina wire plunged red hot in a mixture of Alcohol with air, or any inflamable vapour mixed with oxigen, is become common and is practically used.

M.

MATHEMATICS.

On Descriptive Geometry.

MR. LARKIN has published (in England in 1820) an introduction to solid Geometry and to the study of Crystallography, containing an investigation of some of the properties belonging to the Platonic Bodies independent of the spheres, which contains a description of a variety of solids hitherto unnoticed, and a number of new and remarkable properties of the solids already known. He divides the Platonic (or flat) bodies into two series each consisting of 5 solids, which he calls the natural and the artificial series, this latter has never been found among Crystals. The 5 solids of the natural series are to each other as 1, 3, 4, 6 and 8. Another solid of an extra nature, which he calls a Cuboctahedron stands to the last as 80 to 81. Mr. L. has given the ratios, volumes, extractions and properties of all these bodies. He describes 7 distinct Dodecahedrons which all admit of indefinite variation, and are nearly related to the Cube. The whole is illustrated by theorems and plates. It is as yet the only work in the English language wherein the various properties of the geometrical solids are particularly described.

In France Mr. Vallee has submitted (in 1818) to the Academy of Sciences, a work on Descriptive Geometry, of 500 pages 4to, which was highly praised by the committee to which it was referred. It contains 59 plates, and is a complete illustration of the doctrine of Descriptive Geometry taught by Monges.

M.

On Isomerical Numbers, or Common Multiples.

THE properties of numbers have been investigated long ago; but they have never been classed according to those properties, and they are not all stated in our school books.

It appears that the Infradecimal or first numerical series, from 1 to

10, might be divided into 6 orders, and 3 classes, each possessing striking peculiar properties. They are

I. Class. Primitive Radical Numbers.

1. Order. Unity, 1, from which all other numbers emanate, by self multiplicity, and all fractions by self divisibility.

2. Order. Decimal Sign, 0, which produces the decuplation or decuple division by its union to 1, thus 10 is ten times 1, while 01 is the tenth of one.

II. Class. Uneven Numbers, or Simple Radicals.

3. Order. Ternary Numbers, 3 and 9, which multiplied by any numbers, give always ternary results and properties.

4. Order. Extra Numbers 5 and 7, which have peculiar properties, quite distinct from the ternary ones.

III. Class. Even Numbers or Compound Radicals.

5. Order. Duplicate Numbers 2, 4 and 8, which arise from each other by Duplication.

6. Order. Extra Compound Numbers 6 and 10, formed by doubling 3 and 5; each has very distinct properties, but quite different from 2 and its successive duplications.

I shall proceed no further at present in this investigation, which involves the whole theory of numbers; but I mean to unfold another property of numbers, their isomerical property.

I propose to call Isomerical Numbers (having equal parts) those which are common multiples of all their fractions, or in other words, may be divided by fractions into other regular numbers, without new fractions.

For instance 12 is an isomerical number, since the half of it is 6, the third 4 and the fourth 3; but 11 is an allomerical number, because its half is 5 1-2, its third 3 2-3, and its fourth 2 3-4, and thus with other numbers.

Isomerical numbers may be imperfect or perfect. They are imperfect when they may be divided by some fractions into regular numbers, and perfect when they may be divided thus, by all the fractions contained in the infra series.

Thus 15 is an imperfect Isomerical number because it may be divided regularly only by 3 and 5, or 1-3 and 1-5; while 12, is perfect because it may be thus divided by 3, 4 and 6, the whole series of successive fractions 1-2, 1-3 and 1-4.

All the numbers which can only be divided by one fraction, are allomerical; and there is not a single allomerical number, but what may be reduced into the unity. Thus 3, 5, 7, 11, 13, 17, &c. are allomerical, although they have the unity for one of their fractions, or their 3d, 5th, 7th, 11th, 13th and 17th parts.

Perfect Isomerical numbers form as many series of successive fractions; as soon as the first term of the series is ascertained, all the other terms of the series are found by adding successively the first term to itself. Thus 12 being a first term, the other terms of the series are 24, 36. 48, 60. 72, 84, 96, &c.

Every Mathematical investigation has many practical and useful results. I was led to ascertain the first terms of many series of Isomerical numbers for the purpose of dividing a rule or circle into many equal parts without fractions. I have carried the enquiry as far as the 8th series of successive fractions, which gives equal parts for the 12th and every other suprafractions. By the use of these terms, we will be enabled to divide a circle or a line into a regular and perfect isomerical number of parts, the common fractional parts of which (as far as the 12th) will fall on some of such former parts, without being extrafractional as heretofore.

I shall add a table of these perfect Isomerical numbers as far as the 12th fraction.

SERIES.	Numbers containing other equal Numbers for fractions.	First terms.	Other terms of the Series.					
1st.	All fractions till 1-2	2	4	6	8	10	12	&c.
2d.	" " " 1-3d.	6	12	18	24	30	36	&c.
3d.	" " " 1-4th.	12	24	36	48	60	72	&c.
4th.	" " " 1-5th. 1-6th.	60	120	180	240	300	&c.	
5th.	" " " 1-7th.	420	840	1260	&c.			
6th.	" " " 1-8th.	840	1680	2520	&c.			
7th.	" " " 1-9th. 1-10th.	2520	5040	7560	&c.			
8th.	" " " 1-11th. 1-12th.	27720	55440	83160	&c.			

To explain this Table, let us take the 1st term of the 5th Series, which is 420: Its half is 240, its third 140, its fourth 105, its fifth 84, its sixth 70, and its seventh 60, all numbers without fractions. It is the same with all others.

I shall not attempt to explain the progression and anomalies of this Table, which would lead to very intricate discussions, nor why some terms are common to a double series of fractions. It is enough to know that it is so.

It would be more useful to find a rule by which to proceed in the investigation of the other series; I can suggest but one at present, which consists in multiplying the first term of the last series by the last term of the fractions wanted. Thus to find the 9th series, multiply 27720 by 13, and you will have 360360 for the first term of that series, which will also be common to the 14th (the 14th of 360360 being 25740) and to the 15th: the 15th of 360360 being 24240 &c. The next series or 10th series, must be produced by multiplying 360360 by 16, and so on. But this method will soon produce an infinite accumulation of numbers, and there are perhaps, some lower first terms, which I have not yet ascertained.

I shall conclude by noticing some first terms of imperfect isomerical numbers, having at least three isomerical fractions; all the numbers resulting from a common multiplication table have two such fractions.

8	has unfractional		half, fourth and eighth.
10	"	"	half, fifth and tenth.
30	"	"	half, third, fifth, sixth and tenth.
45	"	"	third, fifth and ninth.
210	"	"	half, third, fifth, sixth, seventh and tenth.

ARCHIMEDES.

CHEMISTRY.

Synopsis of the Principal Discoveries, &c. made in CHEMISTRY *in* 1818.

NUMEROUS experiments have been made on *Selenium* a new substance discovered in 1817. It is acidifiable and combustible, approaching to sulphur, phosphorus and carbon. It combines with all other bodies.

Three new metals have been discovered in Germany. 1. *Cadmium* by Stromeyer, it is alkalifiable and combustible; comes next to Zinc, specific gravity 8,750. Its oxide is greenish yellow. 2. *Vestium*, hardly known as yet, discovered by West. 3. *Wodanium* by Lampadius, specific gravity 11,470. Oxide black, colour bronze yellow, maileable, attracted by the magnet, &c.

Purpuric Acid. A new acid discovered by Dr. Prout, is formed by the action of nitric acid on uric acid. It is cream coloured, tasteless and scentless, it forms various purpurates of a red colour.

Gingoic Acid. Has been discovered in the Gingo-tree or *Salisburia Adiantifolia* by Mr. Peschier, it is next to Gallic Acid and perhaps only a modification of it.

Meconic Acid or the Acid of Opium is not poisonous, and is somewhat similar to sulpho chiazic acid. It changes the solutions of Iron into a cherry red colour. Its properties have been ascertained by Choulant.

Braconnot has found another acid in Nutgalls besides the Gallic acid and called it *Ellagic Acid*, it is perhaps a modification of Gallic acid; but has different properties.

Lampic Acid. Mr. Daniell has called thus the acid formed when ether is decomposed by the action of red hot platinum wire. Gravity 1,008, it produces the effects of chlorine. It forms Salts or Lampates.

Pyromucic Acid has been found by Labillardiere in distilling Mucic Acid. It is white acid, but scentless.

Lassaigne has proved that Rheumic Acid is nothing else than Oxalic Acid.

Vogel has shown that Zumic Acid to which Braconnot had given the name of Nanceic Acid, is merely the Lactic Acid formed by vegetables; their properties are identical.

Malic and Sorbic Acids have been ascertained to be identical.

Three new Mineral Acids have been discovered, *Uranic Acid*, *Manganesic Acid* and *Hydrosulphurous Acid.*

Mess. Pelletier and Caventon have discovered a new vegetable Alkali in the Strychnos nux-vomica, which they call *Vauqueline* or *Strychnide.* It is slightly soluble in water, very soluble in alcohol, gives a blue colour to litmus paper reddened by acid, does not redden turmeric, combines with acids, neutralizes them, and forms with them crystallizable Salts. Three other Alkalies lately discovered have been better studied, they are *Lithina*, *Morphia* and *Picrotoxine.*

By boiling during a long while Starch in diluted Sulphuric Acid, it is changed into Sugar. Daniell has made and published many experiments on it.

M.

The Chemical Art of converting pure Woody Substances into Gum and Sugar, &c. (Abridged by Prof. Rafinesque.)

Mr. Henry Braconnot, member of the Royal Society of Sciences of Nancy in France, has read before the Society on the 4th November 1819, a memoir on his Chemical Discoveries relating to the actual chemical conversion of Saw-dust and Rags, or Pure Woody Matter into Gum, Starch, Sugar and a peculiar acid. This important memoir has been published in the Annals of Chemistry, and many other Scientific Journals. We shall give an exact abridgment of it. These discoveries are likely to lead to useful and practical results. Gum and Sugar may be manufactured on a large scale, and we have acquired an insight into some of the physiological operations of vegetation, in the production of gummy and sugary substances.

After detailing the current opinion on the action of sulphuric acid concentrated upon vegetable substances, he describes several experiments made upon saw-dust (of the Elm-tree) with cold sulphuric acid, which yielded an acid liquor and more than half its weight of a reddish brown gum; but as a great deal of sulphurous acid was disengaged, and he could not reduce the saw-dust to pure woody matter, he proceeded in his experiments by employing linen rags, which he considered as pure woody fibres. The results were as follows.

25 parts in weight of linen rags were dried and reduced by heat to 24. They were put into a glass mortar and moistened gradually with 34 parts in wt. of sulphuric acid, stirring it with a glass rod. No sulphurous acid was disengaged. A quarter of an hour after, the mixture was pounded with a glass pestle; all the tissue of the cloth disappeared, and there remained a mucilaginous mass extremely tenacious, heavy and homogenous, which was allowed to stand 24 hours. This mucilaginous mass dissolved entirely in water, except 2 parts of an amylaceous substance which was nothing but a part of the cloth, which had not been sufficiently acted upon by the acid.

The mucilage diluted in water was saturated with chalk, and being filtered through a linen cloth, became clear; after washing well the filter and pressing the sulphate of lime, the liquors were united and reduced by evaporation to the consistency of a sirrup, and next carefully to a dry mass which was found to be a transparent gum weighing 26 parts, or 1-4th more than the linen employed, deducting the losses and the starch produced.

Mr. Braconnnot made a variety of experiments upon this gum to ascertain its component parts, and properties, the results were that out of 26 parts: It contained 21 1-2 parts pure woody matter, 1 1-2 lime, 2 1-2 sulphuric acid fixed in an unknown manner, and 1-2 part of water fixed also in an unknown manner. It may be used in the arts like Gum Arabic, although it is less cohesive.

Rags treated in the same way with sulphuric acid, diluted with half its weight of water, or moistened with pure nitric acid, were converted into a white starchy matter.

This new gum being boiled for some time with diluted sulphuric acid, is converted into pure Sugar, and a peculiar acid, which Mr. B. calls *Vegeto-Sulphuric Acid.* To come to this result it is not necessary to reduce the rags to a gum; but the acid mucilage formed by their mixture with sulphuric acid was diluted with water, boiled ten hours, and saturated with carbonate of lime:

or after having been subjected to a long and violent heat with some oxide of lead, was afterwards precipitated by a current of sulphurated hydrogen gas. The acid liquid sugar was then saturated with carbonate of lime, and the residue evaporated and dried; in this state it weighed 23 parts in wt. produced by 20 parts wt. of rags, deduction made of the loss from the 25 parts. The vegeto-sulphuric acid was separated by concentrated alcohol before boiling the mixture in the second process. The sugary residue was reduced to syrup, at the end of 24 hours it began to crystallize, and some days after, the whole was forming a single mass of crystallized sugar, which became quite pure and white by being crystallized a second time, and treated with animal charcoal. The crystals were in spherical groups formed by the union of small diverging and unequal plates.

This sugar has a fresh and agreeable flavour, and all the properties of common loaf sugar, this was ascertained by numerous experiments.

From the above account which may appear at first rather obscure, let us deduce the practical manner of performing the operation on a large scale.

Take 250 pounds of clean linen rags (cotton and hemp rags may perhaps do as well), dry them well, moisten them with 340 lbs. of sulphuric acid (less will probably do) in glass pans, pound them after a while with a glass pestle; a mucilage will be produced, dissolve it in water, throw in the solution some oxide of lead, boil the mixture, precipitate the lead by sulphurated hydrogen gas. You will have an acid sugary mass, digest it with concentrated alcohol, the vegeto-sulphuric acid will be dissolved, and the sugary matter remain, weighing about 220 lbs.

Or, pursue the following process which is easier. Take 250 lbs. of rags as above, dissolve them in 340 lbs of sulphuric acid, dilute the mixture with water, boil it ten hours or more, saturate with carbonate of lime, the acid will become united with it. Boil the residue, you will have 233 lbs. of pure syrup, which may be purified and crystalized as usual.

The sulphuric acid, and the vegeto-sulphuric acid are not lost, they may be restituted, and the former may be employed over and over again.

This conversion of wood into gum, starch and sugar, shows how these substances are formed by vegetable action and vital power in trees, &c. The first appearance of wood is in the shape of an organised mucilage called *Cambium*, which is changed into wood by degrees, and chemistry has now restored wood to its pristine state of *Cambium*.

Mr. Braconnot goes on to detail his experiments on the new vegeto-sulphuric acid, and its properties, as they do not offer any practical results, we shall not analyze them. It appears to be composed of sulphur, carbon, hydrogen and oxygen.

He has also attempted to study the effects of sulphuric acid on silk, and has reduced it to a gummy matter. He was in hope to be enabled to fabricate with it silk cloth not spun; but he has not yet succeeded, although he has not lost the hopes of success, and thinks that a varnish at least may be procured by this process.

His experiments on the action of sulphuric acid, upon gum arabic and cane sugar, offered no important results.

Ligneous bodies were changed into Ulmine by the action of Potash. Ulmine therefore, is the result of the action of potash upon wood, and

is more common in nature than generally suspected. It is found besides the ulcers of trees, in their roots, and their decayed parts, in vegetable mould, turf and soot.

Selection of late European Discoveries in Chemistry.

Zoogene. A peculiar substance to which this name has been given, resembling flesh covered with skin, has been found by Mr. Gimbernat, on the rocks of Sanegalla and Negroponte, also in the thermal waters of Ischia and Baden; it affords by boiling an empyreumatic oil and a gelatine.—*Italian Journal of Physics.*

Boracic Acid has been found in solution in some lakes of Tuscany, and in scaly and fibrous incrustations in the Crater of Vulcano, one of the Lipari Islands, by Mr. Arrosto of Messina.

Phosphoric Acid has been found by Mr. Barry, to be present in a soluble state in all vegetable extracts.

Sabadil. A new vegetable Alkali or Alkaline crystallizable matter extremely acrimonious, has been discovered by Mess. Pelletier and Caventon in the seeds of *Veratrum Sabadilla.*

Brucine. The same gentlemen have added another new Alkali, to Chemistry. It was discovered in the bark of *Brucea Antidysenterico.* Taken internally it produces Tetanus. It is bitter and acrid, dissolve in 500 times its weight of boiling water and 850 times of cold water. It forms sulphate, muriate, phosphate, nitrate, oxalate, acetate, &c. of Brucine, by combination with acids.

M.

MINERALOGY.

New Mineral Species discovered or ascertained in 1818.

1. *Egeran* of Werner, has all the essential characters of Idocrase, but differs in colour and opacity. From Eger in Bohemia.

2. *Albin* of Werner, of a white colour, from Bohemia. It is a varity of Apophyllite, a mineral differing from Mesotype by containing potash and no soda or alumine.

3. *Pyrgon* of Werner, called *Fassaite* by the Italians, found in the Valley of Fassa in Italy. Similar to Augite in crystallization, but totally different in appearance.

4. *Gehlenite* of Fuchs, found with the foregoing, another variety of Idocrase and connected with Andaluzite.

5. *Helvin* of Heuland, from Saxony. A regular tetrahedron, softer than glass, of a pale yellowish brown colour, its glass is blackish brown.

6. *Pelium* of Werner, from Bavaria, blue, crystals six sided prisms, truncated on the edges and angles. Very near to Dichroite.

7. *Scorodite* of Breithaupt, from Saxony. When melted smells like Garlic. It is perhaps Cupreous Arseniate of Iron.

8. *Kuebelite* of Dobereiner. It might be called Silicate of Iron and Manganese.

9. *Tungstate of Lead*, from Bohemia. It greatly resembles the brown acicular phosphate of lead, but crystallizes in very acute four sided pyramids.

10. *Termantite*, discovered by Mess. W. & R. Philips, in the copper ores of Cornwall. It contains Copper, Sulphur, Arsenic, Iron and Silica; varies from Iron-black to Lead-grey. Crystals rhomboidal dodecahedrons. Brittle, scratches Copper, specific gravity 4,375, &c.

Prof. Pfaff has proved that Zirconia is nearly identical with the Oxide of Titanium.

Arvedson found Petalite to contain 6 parts of Lithina in 100, and Spodumene or Triphane 9 parts of it instead of potash.

M.

Notice on the Hydraulic Limestone, by H. E. De Witt Clinton, *Governor of the state of New-York, &c. in a Letter to* Prof. Rafinesque.

IT has occurred to me that it might be of great consequence to the people of the Western Region and a personal gratification to you, to become acquainted with the *Hydraulic Limestone*, lately discovered in great abundance in the Western parts of the state of New-York, and which is the best water proof Cement ever discovered or applied.

Its Chemical Analysis shows that it consists in 100 parts of

35 parts Carbonic Acid
25 Lime
15 Silex
16 Alumine
2 Water
1 Oxide Iron
6 Loss

100

As it will not slack, it must first be calcined, then ground like Plaster of Paris, next mixed with an equal weight of sand, and moistened with as little water as possible. It soon forms under water a Cement as hard as a stone.

I send you a specimen of it. Your limestone region must contain this substance.

D. C.

Albany, Sept. 1820.

Note by Prof. Rafinesque.

The specimen of this Limestone sent me, is of an ash colour, perfectly homogenous and smooth, yet showing with a magnifying glass a few bright crystallized specks, and excavated dots; both exceedingly small. Its fracture is angular. I have not yet seen any Limestone exactly like it in the western states, although it must exist somewhere. It will be important to discover it, and employ it for our wells, cisterns, dykes, dams, mills, canals, bridges, wharves, ware-houses, and buildings in contact with water, roofs, terraces, cellars, &c. C. S. R.

ORIGINAL SCIENTIFIC INTELLIGENCE,

OR DISCOVERIES AND REMARKS ON NATURAL SCIENCES;

Extracted from a letter of Dr. John Torrey, *Vice-President of the Lyceum of Nat. History of New-York, to* Prof. Rafinesque.

I HAD long ago analyzed the celebrated Carlisle (New-York) mineral that had been wrongly called *Sul. Strontian.* The error had cir-

culated very far, and even in Thomson's annals philosophy, where it was announced as a great discovery that a large mass of *Sul. Strontian* had been discovereed in this state. I read a paper proving that it was *Sul. Barytes* and not *Strontian* before the Lyceum in March, 1819. Dr. M'Neven was informed of this afterwards in the Lyceum, and he said that some experiments which he intended to make on this mineral should be relinquished, yet he has since published a pamphlet on the subject, in which he says that he was surprised to find that the base of it was *Barytes!*

I have examined one of the large species of *Tuckahoes* from the Southern states, and have made an elaborate analysis of this vegetable, which I communicated last year to the Lyceum. This Fungus is a *Sclerotium* of Persoon; it might be called *S. Giganteum* as it appears to be the largest species known. The little spots on it are caused by a small insect. The analysis afforded results which I little anticipated. Contrary to the opinion of Dr. Macbride (expressed in a paper read some time ago before the Philosophical Society of New-York) the substance of the Fungus consists of a peculiar *new principle*, entirely different from *Fungin*, *Lignin* and *Suberin*; and so distant from Gluten, a modification of which, Dr. Macbride thought made up the principal part of it, that I wonder how it was taken for that substance. I have called this new vegetable principle *Sclerotin* and shall perhaps publish my numerous experiments on it.

I have analyzed a mineral which puzzled our Mineralogists here, and I was greatly gratified to find, that it was the *Datholite* or Silicious Borate of Lime, a mineral not before found in any parts of the world, except in Avendal in Norway, where Esmark lately discovered it. It is found at Patterson in New-Jersey, near the falls of the Passaick in greenstone, and is in greenish crystals, associated with the Prehnite, Zeolite, Carbonate of lime and Stilbite.

A totally new mineral has been discovered in Schooley's mountains in New-Jersey, which I have analyzed. It is a compound of metallic Iron, not oxyded, and graphite. The specimen which I examined was in laminated masses, and resembles very much the laminated graphite, although it is harder; it is very heavy, its specific gravity being 5,114! it is attracted by the magnet, soils the fingers, dissolves in sul. acid, emitting hydrogen gas, and leaving a residuum of graphite. It consists of metallic Iron 54,25 and graphite 11,50. I have called it *Siderographite*. Our mineralogists are much pleased with it, and say that it is an entirely new compound.

A stalactical looking mineral was sent to me, from a mine of Hœmatite in Middlefield, (Massachusetts) which had been considered as a singular mineral: Prof. Dewey thought that it was a new variety of Phosphate of Lime, and Mr. Eaton took it for Arragonite. I analyzed it and found it to be *Hydrate of Alumine*. It resembles in character the *Wawellite*; but differs much in form, &c. If it ever proves to be that mineral, it will yet be an important discovery; the *Wawellite* being one of the rarest species in mineralogy and having only been found in two or three localities in Great Britain.

I have been studying the Genus *Oryzopsis* and have discovered that the *O. Melanocarpa* of Muhlenberg is very different from the *O. Asperifolia* of Michaux, it is really not an *Oryzopsis* since it wants the appendages, simple style, &c. The culm is also very leafy and so very different in appearance from Mi-

chaux's plant, that Muhlenberg could not have seen the latter. Muhlenberg's plant is the *Milium Racemosum*, long ago described by Smith in Rees's Cyclopedia.

Our Lyceum is very flourishing. We have been making great exertions to concentrate in it all the Natural History Department in the New-York Institution. The Historical Society will relinquish that study and cultivate Civil History alone. They have given us their two extensive cabinet rooms and cases, for the room which we now occupy and $500 to be paid in 5 annual instalments of $100.

Several works on our Botany are in contemplation. Mr. Schweinitz of Salem, (N. C.) intends to publish a work on our Cryptogamic Plants, to which he has paid much attention. I mean to undertake a general work on our Grasses, Muhlenberg has left much to do yet. I shall soon publish a second edition of my Catalogue of the Plants of New-York, for which I have considerable additions, I may also add to it some notes and a map.

In Europe, Agardh of Lund in Sweden has just finished his great work on the Species Algarum. Bridel has published a new classical work on Mosses (*Methodus Muscorum* Gothae 1819) which contains all the information collected on Mosses since the publication of Hedwig's posthumous work. The *Systema Vegetabilium* of Romer and Schultes is proceeding and continued by the latter since the death of Romer; it has reached the 5th volume. Decandolle's *Species Plantarum* is a noble work, I have only seen the beginning of it as yet. Sprengel has sent me the first volume of a new work, which he intends to publish occasionally, it contains all the information relating to Botany posted up to the day: This volume contains the botanical reviews and discoveries published in the American Monthly Magazine and the American Journal of Science.

J. T.

N. York, 28th July, 1820.

BOTANY.

Botanical Discoveries made in Kentucky in 1820, *by* Prof. Rafinesque, *extracted and translated from a letter to* Prof. Decandolle *of Geneva in Switzerland, author of the New Species Plantarum, &c.*

Lexington, 1st December, 1820.

I HAVE been highly gratified last spring by discovering two genera of Plants completely new, growing in abundance in the immediate vicinity of this town. I have given them the name of Enemion and Stylypus. My N. G. Enemion belongs to the natural family *Peonidia*, and has much affinity with the genus *Thalictrum*, yet must be ranked with *Caltha* and *Peonia*, owing to its dehiscent capsul. It is distinguished by a coloured and 5 petalled Perigone, many Stamina, 2 to 5 pistils, 2 to 5 capsuls angular, opening inside and 2 or 3 seeded. The species I have called *E. Biternatum*. It is a small smooth plant

from 3 to 10 inches high, and with white terminal flowers, similar to those of *Anemone thalictroides*: the leaves are biternated, and the folioles lobed as in the genus *Thalictrum*, they have rounded and membranaceous stipules, &c.

The genus STYLYPUS belongs to the family *Senticosia* and sub-family *Xerophoria*, being intermediate between *Dryas* and *Geum*. Calyx campanulated persistent quinquefid, 5 small petals, stamina on one peristomic row. Several pistils (and seeds) raised on a long central pillar, styles twisted, &c. My *Stylypus Vernus* has the habit of *Geum*, yellow oboval petals, the leaves pinnate, the upper ones opposite, folioles ovate laciniate, &c.

Another new genus grows at Russell's spring and on the cliffs of the rivers Dick's and Kentucky; it is next to *Sedum*, and belongs to the same family, differing by having 4 unequal petals and 4 monospermous capsuls. I have called it AECTYSON. The type of this genus is my *A. Sagittatum*, which has cylindrical scattered leaves, sagittate at the base, the flowers in a polystachyous umbel, the petals white lanceolate carinate, acute, &c. I suspect that the *Sedum Pulchellum* is very near to this plant, and perhaps of the same genus.

I have visited this year several times the cliffs of the Kentucky, which are so rich in rare plants, and likewise the Knob hills in the neighbourhood of the Olympian Springs, where there is a vegetation totally different from the low country or limestone region.

I have ascertained that the *Jeffersonia binata*, belongs to the natural family of Berberides, having the stamina opposed to the petals, and that its flowers have the fragrance of Daffodil.

That the *Rhamnus lanceolatus* of Pursh, belongs to the genus *Frangula*, having a capsul 3 locular and 3 seeded, with a single trilobe stigma. I call it *Frangula rupestris.*

That there are two species of Buck-eye trees, blended under the name of *Pavia pallida*, I call them *P. ochroleuca* and *P. axillata.*

That the *Viola concolor* must form a new genus, which I call CUBELIUM and is next to *Hybanthus* and *Ionidium*, &c.

I have ascertained more than twenty new species of Plants, not seen before, among which I shall mention *Ranunculus mutabilis, Trillium revolutum, Monarda pratensis, Eupatorium serotinum, Silene fistulosa, Cactus mesocantha, Hepatica parviflora, &c.*

Several friends and correspondents have given me or sent me plants, among which I have ascertained some new ones.

From Dr. Short of Hopkinsville, I have received a great number, several of which are new, I have called them *Gentiana glauca, Pedicularis villosa, Martynia rotundifolia, Veronica connata, Zigadenus angulosus, &c.* He has sent me the real *Gentiana amarelloides* of Michaux, which is totally different from the *G. quinqueflora* of Linneus, with which Pursh has blended it.

From Mess. Clifford, Crockett, Ridgely, &c. several valuable additions to my Herbarium have been received, of which a few are new.

I have even received assistance from some Ladies, and among the plants which they have collected and given me, I have ascertained at least 3 new species *Lysimachia* (or rather *Tridynia*) *glauca, Gentiana azurea*, and *Trillium reflexum*: This last is a beautiful species differing from *Tr. sessile*, by its petiolated leaves, reflexed calyx and pale purple petals.

I have also received many plants from the state of Missouri, sent me by Dr. L. Beck, of St. Louis, and some from the state of Mississippi, collected by Dr. J. Hart of Natchez,

among these last are the following new species, *Gnaphalium nemocladum*, *Melothria alba*, *Asplenium glaucum*, *Aspl. falcatum*, &c.

Some of the fine new plants described in the *Flora ludoviciana* have been detected in Kentucky, such as *Pancratium liriosme*, *Iris brevicaulis*, &c. my *Melothria nigra* is common near Natchez.

I have discovered a great number of fine Plants in Kentucky, which were not supposed to be found so far west and north. Their enumeration might be tedious, I shall merely mention *Ptelea trifoliata*, *Arenaria divaricata*, *Lobadium trifoliatum* Raf. (*Rhus aromaticum* Ait.) *Triosteum minor*, *Nelumbium pentapetalum*, *Agave virginica*, *Iris cristata*, &c.

You will therefore perceive that I have not been idle in the vast field open before me, and although I have not made so many discoveries, nor travelled over so much ground as in the two preceding years, I have nevertheless endeavoured as usual, to do all that I could to increase our knowledge of American Botany. I will send you next spring a large collection of our Plants, of which I have collected several thousand specimens this year..

C. S. R.

P. S. I had omitted to mention another discovery. I have ascertained that the *Phyllanthus Carolinianus* of Walter and Michaux, called *Ph. obovatus* by Wildenow, Persoon, Pursh and Nuttall, does not belong to that genus. It must form a new one having as many affinities with the Genera *Xylophylla*, *Kirganelia*, *Emblica* and *Niruria* as with *Phyllanthus*. I will call it *Geminaria*, owing to a male and female flower being commonly geminated. It is completely distinct from *Phyllanthus* by having 6 free Stamina opposed to the divisions of the perigone, and the Botanists who have united it therewith, must have had a very limited or imperfect knowledge of its character.

On the several species of the Genus CLINTONIA, *addressed to Dr.* SAMUEL L. MITCHELL, *in a letter dated 26th September*, 1819.

IN establishing the genus *Clintonia* I was led to believe that it consisted of a single species, including the *Dracena borealis* of Aiton and the *Convallaria umbellulata* of Michaux, because I had only seen the former and the latter was not sufficiently well described by Michaux, Pursh, &c. to enable me to perceive a clear specific distinction; but having since detected two other species of the same genus, distinct from both, I am inclined to believe that the plant of Michaux, must be also a distinct species. They are all so similar in habit that they have been frequently mistaken one for another. I shall now endeavour to frame a correct and comparative specific definition for each, and state first the generic characters common to all.

CLINTONIA. Perigone deeply 6 partite deciduous corolliform equal: 6 equal Stamens inserted close to and slightly connected with, the base of the perigonal sepals and equal thereto, filaments filiform, anthers bilocular elliptical, notched at the base. Ovary free, style elongated, compressed, stigma compressed, notched or bilobed. Berry bilocular, polyspermous, seeds inserted on the dissepiment, oblong.—*Common habit.* Roots fleshy, creeping, fibrous at the knobs, where a few membraneous scales surrounding 2, 3 or 4 large radical leaves clasping the base of the scape, upright, elliptical, keeled, very smooth but ciliated, end sharply acute. Scape central cylindrical commonly pubescent. Flowers terminal in 1 or 2 umbels or fascicles few flowered.

1. *Sp. Clintonia nutans.* Leaves with ciliate margin, keel smooth: umbel sub-corymbose, pedicles smooth naked nodding unequal, perigone companulate, sepals oblong sessile subacute.—*Dracena borealis* Ait. Wild. Pers. &c. flowers lerge yellowish inodorous New-York to Canada on mountains—Var. 1. *Prolifera.* Corymb proliferous. Var 2. *Fascicularis,* flowers in separate fascicles. 3. *Obovata.* Leaves nearly obovate. 4. *Dasistema,* scape pubescent. 5. *Macrostema.* Scape longer than the leaves. Var. 6. *Uniflora,* &c.

2. *Sp. Clintonia podanisia.* Leaves with ciliate margin, keel smooth; scape pubescent longer than the leaves; umbel erect, pedicles unequal pubescent naked, the longest erect, the others incurved: perigone semi-campanulate, sepals oblong, sessile, acute.—Discovered in July, 1819, on the Laurel ridge in Pennsylvania. Flowers pretty large whitish, inodorous. Var. 1. *Biflora,* with only 2 flowers, the shortest with incurved pedicel, leaves narrow semi-cuneate. Var. 2. *Glabrata.* Scape smooth. Var. 3. *Fascicularis.* 2 umbels, the second lateral, each with 3 or 4 flowers. Var. 4. *Phyllostema.* One small lanceolate and acute leaf on the scape.

3. *Sp. Clintonia parviflora.* Leaves with pilose margin and keel, scape pubescent equal to the leaves; umbel creet 5-8 flore, pedicels equal naked pubescent erect, perigone semi-rotate, sepals semi-onguiculated, claws erect, disk oboval obtuse. Discovered in July, 1819, on the top of the Alleghany mountains in Maryland. Flowers small, perfectly white, nearly inodorous. Var. 1. *Plicata.* Leaves folded falcated. Var. 2. *Abortiva.* Some abortive sessile flowers in the umbel.

4. *Sp. Cintonia odorata.* Leaves oblong-oval, with ciliate margin and keel; scape pubescent, umbel erect, pedicels bracteated.—*Convallaria umbellulata* Mx. Pers. &c.—This character is from the imperfect account of Michaux, who did not mention the shape of the perigone nor sepals; but the bracteated white fragrant flowers appear to entitle it to be deemed a peculiar species. Native of the Alleghany mountains. Var. 1. *Punctata.* Flowers with red dots inside.

C. S. Rafinesque.

Lexington, 10th September, 1819.

AGRICULTURE.

Practical Remarks and Results on the Agriculture of the Western States, or on the Cultivation of Corn, Wheat, Hemp and Tobacco in 1820.

THERE has been a general complaint throughout the western states during the year 1820, owing to the depression of property and Agricultural products, that the common staples have failed to give the usual returns, and that Farmers and Planters have been unable to supply their wants beyond their mere subsistence, owing to the failure of good markets, and the low price of all that they have raised.

I shall not endeavour to prove that this general complaint, was arising from a relative fall in the prices of every thing; when a farmer is compelled to sell his wheat at 25 cents per bushel, while he could formerly receive 50 cents for it, he is liable to think himself ru-

ined, like the man of property who had valued his house at $10,000 and finds that it is become hardly worth $5000. I shall not attempt to show the fallacy of this prejudice, by long and tiresome proofs derived from the rational axioms of political economy, which might be liable to be controverted; but by plain facts and results, which cannot fail to convince all those who are able to calculate the revenue of a farm, and its nett proceeds. It will be easy to prove that notwithstanding the reduced prices of Corn, Wheat, Tobacco and Hemp, they have not been quite unprofitable cultivations, and I shall add some remarks on the improved cultivation of Corn with Beans, &c.

If I fail to convince those who are determined to believe that we are ruined, I hope that those who do not feel such a deep despair, may attend to those remarks and profit by them.

Although these calculations have been made in Fayette county, they apply with very slight variations to the whole of Kentucky, and to Ohio, Indiana, Illinois, Tennessee, &c. In many parts of which, particularly on the banks of the Ohio, the prices have never been so low as here.

I.—INDIAN CORN.

Produce of an Acre of land cultivated in Indian Corn in the usual way:

Average produce of one acre 50 bushels or 10 barrels, at 20 cents per bushel, or 1 dollar per barrel, (this must be the medium price, although it has sold as low as 75 cents per barrel)	$10
Leaves, Stalks, Husks and Green Corn,	5
	$15

DEDUCTIONS.

Rent or interest of the Land,	$1	7
Labour, ploughing, planting, hoeing, weeding, gathering, carting, husking, &c. (or nothing if done by the farmer,)	6	
Nett produce,		$8

REMARKS.

1. Therefore a farmer having 100 acres under this cultivation, will have derived in 1820, a revenue of $800 from it, and the proceeds are 114 per cent. on the disbursements.

2. There are very few farms which produce less than 50 bushels of Corn to the acre, and many more produce 60 or 70 bushels, which increases greatly the proceeds.

3. A man can buy some worn out or distant land at $8 per acre, and the proceeds of one year will pay for the land.

4. Some wood lands a few miles from Lexington, have been sold as low as $15 per acre, and the sale of the wood for fuel, united to this crop, has paid for the land in one year.

5. Manuring is not known in the rich districts of Kentucky, and forms no part of the expenditure and labour.

6. The interest on Congress lands is only a few cents, or less than stated even if the clearing is calculated.

Produce of an Acre of land, cultivated in the improved way with Corn, Pumpkins and Beans:

Produce of Corn 50 bushels as above, &c.	$15
Three loads of Pumpkins at 2 dollars per load,	6

Three bushels of Beans at 1 dollar per bushel,		3
Leaves of Pumpkins and Beans for the cattle,		1
		$25

EXPENDITURE.

For Corn as above,	$7	10
For the Pumpkins and Beans,	3	
Nett produce,		$15

REMARKS.

1. Making 150 per cent. upon the disbursement, and giving a revenue of 1500 dollars, for one hundred acres.

2. Since 1500 dollars can be made as easily as 800 dollars upon the same ground, it must appear strange that many farmers neglect to increase and duplicate their revenue in that way: some however do not fail to avail themselves of this improvement.

II.—WHEAT.

Produce of an Acre of land cultivated in Wheat.

Average produce of one acre, 30 bushels at 25 cents,	$7 50
Value of the Straw,	1 50
	$9 00

EXPENDITURE.

Rent or interest, cultivation, reaping, thrashing, &c.	4 00
Nett proceeds,	$5 00

REMARKS.

1. Whence it appears that Wheat is a much worse cultivation than Corn, it may give 125 per cent upon the disbursement; but produces only 500 dollars for one hundred acres.

2. In some places a few instances have occurred of farmers being so much discouraged by the low price of their wheat, that they did not reap it; but employed it as a pasture to fatten their cattle and hogs; but even in that instance, the nett proceeds must have been about 3 dollars.

3. If Buck-Wheat was sown on the same field, after the harvest, as in Pennsylvania, Ohio, &c. the produce of the same ground would be doubled, or about 1000 dollars for 100 acres.

III.—TOBACCO.

Produce of one acre of land cultivated in Tobacco.

Average produce of one acre, 1000 lbs. at 2 cents per lb.	$20

EXPENDITURE.

Rent or interest, cultivation, drying, &c.	$11	14
Hogshead, packing, carting, &c.	3	
Nett proceeds,		$6

REMARKS.

1. It appears that the cultivation of Tobacco gives less than 50 per cent on the expenditure, and about 600 dollars for one hundred acres. It is one of the most troublesome, and expensive culture, and exhausts the

soil more than any other. It ought to be discouraged, and no longer considered as the staple of our country.

IV.—HEMP.

Produce of one acre of land cultivated in Hemp.

Average produce of 1 acre, 800 lbs. at 4 cents per lb. (this is the lowest price),		$32
Tow, Seeds, &c.		2
		$34

EXPENDITURE.

Rent or interest, cultivation, reaping, &c.	$12	22
Rotting, cleaning, packing, &c.	10	
Nett proceeds,		$12

REMARKS.

1. The produce of 100 acres will be 1200 dollars, although it gives hardly more than 50 per cent upon the expenditure; but at 5 cents per pound it will give 2000 dollars, or nearly 100 per cent.

2. Hemp ought to be preferred to Tobacco as a staple, because it is a more useful article, a less exhausting crop, not more difficult to prepare, and a more productive one.

3. Hemp has been already cultivated constantly during 30 years, in some parts of Kentucky, without any manure, nor any diminution in the fertility of the soil; the crops even appear to grow better after many years successive culture on the same spot.

4. The usual practice is to rot the Hemp, by exposure to dews and rains; the quality might perhaps be improved if the rotting in water or by steeping, was to become more common.

I shall endeavour at a future period to show to our Farmers, that they could derive an annual revenue of from 5000 to 10,000 dollars or more, upon one hundred acres, by the introduction of some more valuable staples, such as mountain Rice and Grape Vines, or could greatly increase their actual incomes by an improved and more careful management of their Pastures, Apple Orchards, Potatoes, Turnips, Barley, &c.

Meantime I shall conclude by a comparative table of the expenses and revenue attending the culture of the four staples above mentioned, which I hope may demonstrate that our country far from being ruined and distressed, has within itself inexhaustible sources of real wealth.

TABLE OF THE NETT PRODUCE OF ONE HUNDRED ACRES.

$ 300	Wheat for pasture	or 100 per cent	on expenditure.
500	Wheat for grain	or 125 per cent	ditto.
600	Tobacco	or 48 per cent	
800	Corn alone	or 114 per cent	
1000	Wheat and Buck-Wheat	or 150 per cent	
1200	Hemp	or 55 per cent	
1500	Corn, Pumpkins and Beans	or 150 per cent	

AGRICOLA.

Fayette County, Ky. 16th, November, 1820.

MANUFACTURES.

On the various Manufactures from Flour.

IT may appear strange that in the Western States where wheat is now so cheap, and so unsalable, no other manipulation of it, has been extensively introduced, except making with it, Flour, Bread and Whiskey. Flour is as low as Wheat every where; Bread can only be used for daily consumption, and Whiskey besides being extremely cheap, is a pernicious liquor and manufacture. It will not therefore be useless to point out the other profitable manufactures which might be undertaken with it and gradually rendered a source of wealth for these states, furnishing extensive articles for exportation.

1. *Ship-Bread.* This article is seldom manufactured by us. When Flour is at 1 cent the pound, it may be afforded at 2 cents the pound, and would sell at New-Orleans from 5 to 8 cents per lb. according to the quality. We could manufacture this article to any extent and in any quantity; suppose we should export annually 100,000 barrels, or 20 millions of pounds; the revenue from this single branch of trade might be one million of dollars annually at the low rate of 5 cents per lb.; which profit would be divided between the Farmers, Millers, Bakers, Carriers and Exporters. By selling this article low, we might undersell every other nation, and supply perhaps one half of the whole annual consumption of this article in the United States, West Indies, &c. which would amount to more than 500,000 barrels. Let extensive bakeries be established in proper places, and let it be exported instead of flour, which never gives a profit to the exporter.

2. *Crackers.* We might manufacture extensively common Crackers and butter Crackers, together with Ship-bread, and afford to sell them at 3 cents per pound, although our Bakers have fixed every where their price at 12½ cents per lb. in retail, whatever be the price of flour; but this is an unwarrantable extortion, which ought to be corrected. They would sell in New-Orleans from 8 to 12½ cents the lb. If we should expert annually 100,000 barrels, we might derive an annual revenue of one million and a half of dollars from this article alone.

3. *Starch.* This article is as easily made as Four, and when Wheat is at 25 cents per bushel, could be afforded to be made for 2 cents per lb. leaving a good profit to the manufacturer. It would sell from 4 to 6 cents per lb. at New-Orleans. If we were to export annually 20 millions of lbs. which could be done very easily, it would at 5 cents per lb. in New-Orleans, produce us another annual income of one million of dollars.

4. *Macaroni* and *Vermicelli.* This is a peculiar manufacture of flour, which forms one of the principal articles of food of all the nations inhabiting around the Mediterranean and in the Spanish Colonies. The Flour is kneaded into a peculiar tough dough, coloured and flavoured with saffron, &c. and several shapes are given to it, it is next dryed in the sun or an oven, but not baked. When their shape is long and flat, they are called Nuddles, Ribbons or *Lasagne.* When cylindrical and hollow *Macaroni.* When thread-like *Vermicelli.* When Granular *Semola.* When Star-like *Stelluzze.* When like Pumpkin-seed or Melon-seed *Semenzina.* When

under various small shapes *Paste-fine*, &c. All these names are Italian, because it was in Italy that this manufacture took rise several centuries ago, from which it has spread all over Europe. It was introduced in the United States in 1802, by Mr. Sartori of Trenton, a native of Rome, who has realized a fortune by it. There are now several manufactures in New-York and elsewhere; but it is become a monopoly in the hands of a few individuals, who sell every where and at all times at 25 cents per lb. what costs them from 6 to 12 cents per lb. according to the price of flour. When flour is only worth one cent per lb. we could afford to make them for 3 cents per lb. It is a highly nutritious and wholesome food in the shape of Soup, Pillaus, Puddings or boiled to dryness. It might become an article of home consumption when well known. Meantime 100,000 boxes might easily sell annually in New-Orleans for the consumption of the French & Spanish inhabitants, or the markets in the West Indies, South America, &c. at the average rate of 12½ cents per lb. If every box weighed about 50 lbs. it would be 5 millions of pounds, giving us an annual income of 625,000 dollars, and leaving a very great profit to the exporter.

This article may be manufactured with the hands; but machines and presses are usually employed, when made on a large scale; the cost of which could not exceed a few hundred dollars. I understand that there are in Lexington, some individuals who have been in Italy, and are well acquainted with the whole process, which they would readily communicate.

5. *Molasses, Sirrup* and *Sugar.* These different articles may be manufactured from Flour! This is well known to all the Chemists; the discovery was made three years ago in Europe. A patent has however been granted since to an individual for the same process or a very similar one, which cannot stand good, and need not be attended to. It is a well known fact, that Molasses have been made from Corn, many years ago in Kentucky. This would not be an article of exportation, since we could not undersell the sugar and molasses of New-Orleans; but it will be a valuable one for home consumption, and might prevent the drains of money employed in the purchase of those articles elsewhere. Those who may wish to establish these manufactures, may apply to any person conversant with Chemistry, and they will be directed how to proceed. At the present low price of Wheat, Molasses may be made on a large scale at about 20 cents per gallon, Sirrup at about 40 cents per gallon, common sugar at about 6 cents per lb. and loaf sugar at about 15 cents per pound.

I hope that these suggestions, will be attended to, as they deserve. It is by active exertions that industry thrives, and since it has become highly needful that we should find new ways of rendering productive and profitable our agricultural products, let us avail ourselves of all the means, which are in our power, and let us link new and easy manufactures to our cultivation of the soil.

AGRICOLA.

STATISTICS.

Statistical View of the Town of LEXINGTON *in* KENTUCKY, *in December* 1820.

NUMBER of Buildings, 885.

Dwelling houses and house keepers, 552.

Churches and Chapels, 8.

Public Buildings, 20. Court house, Jail, Masonic Hall, University buildings, Academies, Lancasterian School, Banks, Library, Atheneum, &c.

Population, 5520 souls, at the rate of ten for each dwelling house. By the United States census of August 1820, it is only 5279; but it was then the vacation of the University.

Proportion of the Population by the United States census. Whites 3523. Colored population 1756. Males 2718. Females 2561. Children under 16 years, males 1085, females 1172. Persons above 45 years, males 246, females 255: or only 501 above 45, while there are 2257 under 16.

Manufactories 20. Rope-walks 4, Steam Mills 3, Cotton factories 2, Woollen factory 1, Bag manufactory 2, Oil-cloth factory 1, Tobacco stemery 1, White lead factory 1, Brewery 2, &c.

Stores and Shops 122.

Hotels and Taverns 10.

Boarding houses about 20.

Trade. Merchants 52, Auctioneers 4, Grocers 16, Liquor stores 10, Clerks of the Banks &c. 15, Booksellers 3.

Medical Profession. Physicians and Surgeons 14, Druggists and Apothecaries 4, Midwives 2.

Lawyers 17, Judges and public officers 10.

Clergymen and Preachers 9.

Professors, Teachers and School masters 25.

Mechanics. Printers 4, Bookbinders 5, Painters 6, Jewellers and Watchmakers 10, Coachmakers 5, Tailors 12, Saddlers 6, Joiners and Carpenters 42, Goldsmiths, Silversmiths and Silverplaters 8, Wheelwrights 4, Turners 2, Masons 20, Weavers 4, Dyers 2, Coopers 5, Brickmakers 3, Chairmakers 4, Millwrights 2, Bakers 4, Blacksmiths 13, Braziers and Tinkers 3, Tanners 4, Cabinetmakers 8, Plasterers 7, Barbers 4, Founders 2, Chandlers 2, Potters 2, Hatters 7, Spinners 3, Shoemakers 16, Tobacconists 6, &c. Besides twenty other trades in which there are one or two individuals employed. The above are only the heads of trades and families; Journeymen are not included.

Other Professions, &c. Gentlemen house keepers 36, Ladies and Widows house keepers 16, Milliners 4, Confectioners 4, Butchers 6, Carters and Wagoners 5, Farmers and Gardeners 8, Millers 2, &c.

Individuals belonging to the University, in all, exclusive of the Trustees 305.

Periodical Works published in Lexington. 3 weekly gazettes, the *Reporter*, the *Kentucky Gazette*, and the *Monitor*; one semi-weekly, the *Lexington Advertiser*. In the beginning of the year four literary journals were published, two weekly, the *Castigator* and the *Censor*, one semi-monthly, the *Journal of Belles Lettres*, and the *Western Review* monthly: these have been suspended by the death or departure of the Editors, except the last.

In 1800 Lexington contained only 250 houses and 1795 inhabitants.

No registry is kept as yet of the Births, Marriages and Deaths; but the births are generally double of the deaths. W. M.

View of the Public Institutions for Instruction in Spain and the United States.

We shall offer to the public with few comments, a short comparative and tabular view of the state of Public Instruction in Spain and in the United States. The contrast will be sufficiently obvious to strike the mind and suggest many painful reflections. We hope that it will not lead us to entertain the false idea that monarchies are more favorable to learning and knowledge than republics; but may convey an useful lesson to the American statesmen and the people at large, in which resides the power to correct this evil; let will be added to this power: the needful means are ready.

The Spanish statements are drawn from official reports made to the Cortes in 1820, and show what was the state of public instruction in the monarchy, before the adoption of the Constitutional Government! The American results are collected from various sources, as no official returns are ever made on the subject collectively, and they are rather over-rated than otherwise!

SPAIN.

In Spain, a despotic monarchy, containing a population of about ten millions, groaning as we supposed, under the aggregated evils of despotism, ignorance and intolerance, there was in the beginning of 1820, the following number of public institutions for National Instruction, all endowed with adequate or proportionate revenues.

22 Universities, where all the Professions are taught, and consisting each of the four needful Faculties of Arts and Sciences, Theology, Law and Medicine.

120 Colleges, principally dedicated to the study of Languages.

99 Provincial Academies or preparatory colleges.

47 Schools of Natural History and Botany.

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288 Institutions of Public Instruction, in which the number of students were as follows:

In the Universities, 1000 students in each.	22,538
In the Colleges, average 54.	6,424
In the Academies, average 44.	4,422
In the schools of N. Hist. average 50.	2,390
Total of Students,	35,774

Remarks.—Spain is divided into 15 provinces, and every province has at least one and sometimes two Universities, besides several colleges, &c.

The theological Seminaries, conventual Seminaries, private Academies and Lancasterian schools are not included in the above number.

The tuition is GRATIS in all those institutions. All the professors have salaries from the public funds and endowments. Nothing is paid for tickets, admittance, libraries, &c. and only trifles for matriculation and degrees!

The only expense is therefore the board of the distant students, and many poor students are even boarded gratis.

Every institution has one or several public libraries, the needful apparatus &c. and all the schools of Natural History, museums and botanical gardens.

Such was in 1819 and in 1820, the state of Public Instruction in SPAIN! In the country and nation which we used to consider as the most degraded and ignorant in Europe. Let us see what it is in our own country, which we deem to be inhabited by the most eminent and enlightened nation of the globe!

UNITED STATES OF AMERICA.

These United States contain a population of ten millions like Spain; but enjoying the blessings of liberty, knowledge and tolerance, since their independence; yet forty-four years after it, they have only the following number of institutions for Public Instruction, among which these are hardly a single one which is sufficiently and adequately endowed so as to be enabled to give gratis instruction!

15 Universities, many of which are not yet in operation, and many others have only one or two faculties.

50 Colleges, many of which exist only in name.

180 Academies or grammar schools; but many are mere primary schools.

5 Schools of Natural History and Botany; but only one of which is in complete operation.

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250 Institutions of Public Instruction, in which the number of students is calculated to be

In the Universities, about	1800	average 120.
In the Colleges,	3500	average 70.
In the Academies,	5400	average 30.
In the schools of N. Hist.	50	average 10.
Total of students,	10,750	

Remarks.—Our confederation contains now 24 states and 5 territories or districts, and there is not yet one University in each, while there ought to be one in each state, with a school of Natural History and Botany annexed to it: One College to each county, and one Academy to each town.

Students have to pay for their tuition, tickets, use of library, degrees, &c. besides their board &c: whence the poor are excluded from or unable to attend these public institutions, except in the Academies of Andover in Massachusetts, and Exeter in New Hampshire, which the munificence of some individuals, the brothers Philips &c. has liberally endowed, and where instruction is gratis.

Many of our Universities, Colleges and Academies, have no library nor apparatus, nor museum, nor garden, and several have these needful appendages of a size and kind inadequate for the purpose intended.

This was the state of public instruction in the United States of America in 1820.

Which might be deemed the most liberal and enlightened nation in 1820? Spain, affording gratis a classical and scientific instruction to 35,774 students, or the United States, providing a costly and imperfect instruction for 10,750 students! One in a thousand of their population!

Should this picture and contrast put us to the blush, it may induce us to attend at last and in earnest to this most important part and duty of legislation.

MENTOR.

Remarks on Public Instruction in the state of New York.

By an official statement of Gov. Clinton, concerniug the state of instruction in that large and populous state, which contains over one million of inhabitants, it appears that the following number of students received public instruction.

In the three Colleges, Columbia College of New York, Union College of Schenectady, Hamilton College of Staten Island,	522
In the two medical schools,	196
In 40 incorporated Academies, among which only 30 are in complete operation,	2,218
Total,	3,466

Only 668 students were studying the ancient languages in the Academies, whence it appears that 1550 students, were merely taught English Grammar and the inferior branches of education. Therefore only 1386 students were receiving classical or professional instruction in the public institutions.

The funds appropriated at various times by the legislature for public education and instruction, including common schools, amounted to $2,500,000, which at 6 pr. ct. would give an annual revenue of $150,000. If this immense sum had been properly applied it would have furnished salaries &c. for 300 professors and teachers, who could instruct gratuitously 15,000 students.

By this plan the sum annually paid by scholars and students would be spared to the parents and the state, and the poor would be put on a level with the rich, who now monopolize instruction. The sums paid for tuition in the state of New York must annually amount to $388,640.

By 3.466 collegiate and academical students at $40 each on an average,	138,640
By about 50,000 inferior scholars at $5 each,	250,000
	$388,640

To which adding the interest of the two millions and one half, the whole amounts to $538,640, or more than half a million of dollars. If this sum was annually raised in another way and properly applied, it might afford gratuitous instruction to at least 160,000 students, taught by 1000 professors and teachers, divided in one University, fifty Colleges, one hundred Academies and two hundred Schools.

500	Medical students.
300	Law students.
200	Theological students.
1000	Philosophical students.
8000	Classical students.
50000	Academical students.
100000	Grammar students.
160,000	Students instructed gratis! instead of 53,466 students and scholars imperfectly instructed at their own charge.

The first state in the union which shall frame a regular and complete system of gratuitous education, will acquire immortal glory. A beginning has been made in Connecticut; but it is only the lower instruction which is given gratis there. A personal tax of one dollar in a state containing half a million of souls, will be perfectly adequate, or the sum of half a million of dollars might be raised in proportion to the income of each citizen. Every father of a family pays a heavy tax in the shape of tuition for his children. This tax would be lessened under this new plan, and an equal avenue open to genius, assiduity and eminence among the students belonging to all the classes of society.

MENTOR.

ARCHEOLOGY.

Alleghawee Antiquities of Fayette County, Ky. in a letter of PROF. RAFINESQUE *to the* AMERICAN ANTIQUARIAN SOCIETY.

GENTLEMEN,

I FEEL grateful for the honor conferred upon me by electing me a member of your society, and I shall endeavor to acknowledge it by becoming a useful fellow-labourer in the wide field of Ancient American History. The numerous monuments scattered throughout the Western States, are the principal records left us by a powerful nation, which dwelt in them at an early period, and to which I apply the name of Alleghawee, given to it by the Lennape Tribes. It is high time that these monuments should all be accurately surveyed, described and drawn, ere they disappear under the plough, or through wanton neglect. It is my intention to perform this, respecting all those of this state. I have already during last year examined thoroughly and delineated those existing as yet in the counties of Fayette, Woodford, Jessamine, Montgomery, Bourbon, Harrison, &c. and hope to complete this year the survey of those which I have heard of in the counties of Garrard, Madison, Clarke, Bath, Warren, Jefferson, &c.

Meantime I will offer you in the first instance an account of those observed in Fayette county, which appear to be as numerous and interesting, as any other groups. The whole of my descriptions will be accompanied by plans and views, surveyed and drawn by myself.

The principal ancient monuments of Fayette county lay on the south banks of North Elkhorn creek. I have already described the upper group in a letter directed to Caleb Atwater, Esq. of Circleville, and published in the Western Review, vol. 3, page 53. I shall now proceed to notice the lower group, which is the most interesting by its perfect preservation, height and size. Let us call it Group No. 2.

It lays due north from Lexington at 7 miles distance, and nearly two miles west of the upper group No. 1, between the farms of Major Meredith and Dr. Witherspoon, in a fine open wood or park, which has never been under cultivation.

The Creek meanders in a fine valley and is very crooked, all the monuments are on the high ground south of the valley. There is a singular spouting spring in the very bed of the Creek, north side, and south of it a chain of sinks, sinking springs and brooks.

This group consists in 6 monuments, a town, two circumvallations and three mounds.

The town is a large icosogonal monument of an oval shape, with twenty unequal sides, all streight except one. It lays nearly half a mile east of Major Meredith's farm, & nearly as far south from the Creek, on a beautiful level. Its whole circumference is 3736 feet. It is surrounded by a ditch about 15 feet wide and from 4 to 8 feet deep. It has no parapet; but the Area appears to be somewhat higher than the outward ground. There are no mounds nor remains inside. It has only one visible gateway on the south side. There must have been formerly a spring inside of it towards the west, there being a hollow in that direction emptying into a run. The direction of the oval

is from S. W. to N. E. the narrowest end being N. E. The longest side is S. E. being 500 feet long, it has south an arched concave side. The smallest sides are 100 feet long, and there are many of that length.

This must have been the site of a ditched town.

The second monument or largest circumvallation, lays half a mile distant from the town, to the N. E. and on the immediate margin of a high cliff along side of which flows the creek. It is one of the best preserved monument of the kind in Kentucky, and has one of the largest ditches I ever saw, being from 15 to 20 feet deep and 60 feet wide. The outward parapet is 6 feet high and 30 feet wide: its circumference is 850 feet. The gateway is over 20 feet wide, looking towards the S. W. or the town, and level with the interior area, which is perfectly circular and about 125 feet in diameter. This must have been a temple and a magnificent one: the high outward parapet, and deep inside ditch could never have been calculated for defence.

The third monument or smaller circumvallation, lays nearly half way between the town and large temple, in the valley of a run flowing north into the Elkhorn, and on the right side of it: the ground is now an Ironweed brake. Its gateway lays N. E. looking towards the large temple. The circumference is 400 feet, ditch 2 feet deep, outward parapet 1 foot high. This must have been a small temple, or the temple of the Moon, if the former was that of the Sun.

The three mounds are of earth, circular and hemispherical: they lay irregularly.

The largest has a circumference of 200 feet and is 8 feet high: it lays west of the small temple, over the run and valley.

The second in size, is 162 feet around and 3 feet high; it lays half a mile south-west of the town.

The smallest is 100 feet around and 3 feet high; it lays north of the small temple and S. W. of the large one at the mouth of the Run.

There is north of the Elkhorn, another small group (No. 3.) of monuments, consisting of a Dromus and 3 mounds.

The Dromus or Raceground is a most singular monument in the shape of a Hook, laying north and south, about half a mile S. from Little Elkhorn Creek, and two miles N. from North Elkhorn, near the farms of Dr. Innis and Captain Grant, towards the S. E. It will be very difficult to describe it properly; but the figure will explain whatever may appear obscure. It consists in a hollow streight way 5 feet deep and 8 feet wide, having on each side a parapet 4 feet high and 8 feet wide, and divided in 4 parts, the first or northern is 850 feet long, rounded and open at its beginning or end, and separated from the second part by a gateway or cross road through the parapets. The second part is 600 feet long, and the hollow way terminates abruptly at the third part which is a raised area on a level with the parapets 75 feet long, 20 wide and 4 high; it surrounds to the south a mound 196 feet in circumference and 6 feet high. From this mound the fourth part or hook spurs to the right and soon takes a due north direction. This hook or spur is 400 feet long, 75 wide, separated from the second part by a space 200 feet wide, it has also a parapet on each side and a large hollow way 40 feet wide and 5 deep: its end is rounded and raised in parapet.

It is difficult to ascertain exactly the purpose of this strange monument. It has been supposed erroneously to have been a mining work for lead, of which it is said that there are traces in it; but I could

not perceive any: while its regularity, double parapet, mound, &c. prove that it must have had a different destination. I have called it a Dromus or Raceground, because I venture to assert that it was a religious place of sport. The mound might be the funeral pile of a great hero or warrior, and games might have been instituted in his honor, and principally foot races.

This monument lays partly in woods and partly in corn fields, it has already been impaired by the plough, which is fast levelling the mound. Its whole length is nearly 2000 feet. There is a sinking brook next to it on the eastern side.

The second mound lays a quarter of a mile N. N. W. of the upper end of the Dromus by the side of a large never failing sinking spring, and is a kind of short parapet 20 feet long, 5 wide and 2 high. I cannot conceive of what use it might be. It lays near Capt. Grant's farm, in the direction of N. E. and S. W.

The third mound is a very large one, nearly half way between the Dromus and the group No. 2, which it appears to connect together. It lays south of Major Long's farm and is represented to be 500 feet in circumference and 25 feet high; but I have not measured it myself.

A fourth group of monuments (No. 4) lays about 4 miles N. W. from Lexington on the upper Frankfort road, and near the Town Fork Creek, on its right bank and out of its valley. It includes a square monument and a circumvallation.

The square monument is surrounded by a ditch only, and has no parapet. It may have been a ditched village. It has four equal sides, each 550 feet long making the whole circumference 2200 feet; the sides are exactly fronting N. W. and S. E., N. E. and S. W. The gateway is in the middle of the N. W. side, looking towards the Creek and 15 feet wide. The ditch is only 14 feet wide and 4 deep at present. The angles are rounded. There is in the centre a small mound 40 feet round and 1 foot high: while in the N. E. ditch, there is another mound 50 feet round and 6 feet high, formed of stones and earth. This last has been opened and found to enclose a grave and coffin laying due east and west, made of large flat stones, and measuring 8 feet in length, and 2 feet in breadth. It must have been erected for a chief of gigantic stature who fell on the very spot, in defending the ditch. There is no water inside of this monument: the nearest water is that of a Run south of it, flowing into the Town Fork: it lays in the woods, between the farms of Mess. Bainbridge and M'Cracken.

The circumvallation lays in a corn field north of it and a quarter of a mile distant, separated by another run. It has been nearly levelled to the ground by cultivation. It is only 300 feet in circumference, parapet 1 foot high. Ditch two feet deep. Gateway due west, and opposite a fine spring, which lays 150 yards distant.

No. 5, or the fifth group of monuments in Fayette county, lays on the South Elkhorn Creek, north or right side, about 7 miles west of Lexington. It includes a Polygone, a circumvallation, two mounds and several graves.

The Polygone is the site of a town, and lays in the woods, on a high level ground, in a bend of the Creek and near the farm of Colonel Mulgher's. It has nine unequal sides: its circumference is 3100 feet. It has no parapet. [illegible] is commonly 10 feet broad and [illegible] deep; but obsolete in some places. The area appears to be 1 foot higher than the outward ground. The gateways cannot be ascertained; but there are now two roads cross-

ing it, and of course 4 gateways, one leads to Morgan's mill and the other to Calley's ford. Three vallies begin close by E. S. and W. this last begins inside of it. There is besides to the east a large regular hollow, which has the appearance of having been dug for a well. No remains are seen inside.

The circumvallation was probably the temple of this town. It was about half a mile distant, to the S. W. in the fork formed by the junction of Shannon Run and South Elkhorn, in the fields of Major Ashby's farm. It has been completely destroyed by cultivation; but is said to have been 30 years ago, about 300 yards in circumference, and the ditch one yard deep, gateway due east.

The mounds are round about 200 feet in circumference and four feet high; one lays S. W. of the last monument, on the left side of Shannon run, and another south of it, near Mr. Milton's farm, on the right side of Shannon run.

The graves are numerous quite along the South Elkhorn and near the Polygone; they are on the banks of the Creek, shaped like the elliptical mound, but formed of loose stones and containing inside a row of stone coffins, the sides and tops of which are formed with large flat stones. They always lay in a row across the mounds, the head to the west, and the feet to the east. These graves are yet very common in Fayette county: although great numbers have been wantonly destroyed, to make lime with the stones, or to build with. They were exceedingly numerous at the settlement of the country on South Elkhorn, North Elkhorn, Town Fork, Grave Run a branch of Hickman's Creek, &c. They have often been noticed as highly singular: we find them mentioned in Brooke's Gazateer, &c. and lately again in the Western Review, vol. 2, page 200.

Having accurately surveyed one, its description will serve for the whole. Circumferenee 210 feet, Elliptical, length from N. to S. containing 8 graves, on a level with the ground, beginning all at the same point east; but of different lengths and breadths, without regularity, from 4 to 6 feet long and from 1 to 2 feet wide. It appears that they were family vaults or tombs. There are some with several rows of graves or coffins one upon the other in a pyramidal shape, and containing as many as one hundred coffins. One of the largest (now totally destroyed) was on the Town Fork, close by Lexington W. near the Woollen Factory: it was 450 feet round and 25 feet high, entirely of stones. Another on Grave Run near Frogtown, 4 miles S. E. of Lexington, was nearly 400 feet and 20 high. Many were 300 feet round and 15 feet high. I conjecture that there must have been 300 of them in this country, under which were buryed about 2000 individuals. A few coffins being sometimes 7 or 8 feet long, show a gigantic stature in the tenants.

There is a small group of Earthen circular mounds west of Lexington. One of them which was in the town on the hill has been destroyed, it was about 150 feet round and 8 feet high.

Another still exists near the Versailles road, which is also 8 feet high and about 200 feet round. It has been dug, and found to contain bones and broken ware.

Two others lay on Mr. Leavy's farm, they are about 5 feet high and 100 feet round. They have also been found to contain bones, instead of the treasures which were looked for.

The last monument of Fayette county is the town with 7 unequal sides, near the head of Hickman's Creek, described in my letter to Caleb Atwater, Esq. printed in the

Western Review, volume 2, page 242.

I have already sent you the drafts of my surveys of this last town and the two groups on North Elkhorn; through the care of Mr. Atwater. I now send you the plans of the Dromus, the group on Town Fork, the group on South Elkhorn and several views of the graves.

Lexington, 3d January, 1821.

My next letter will describe you, the singular aquatic town at the mouth of the Town Fork, Woodford county, and the town on Stoner's Creek, Bourbon county, where the remains of the houses are seen as in Tennessee.

Meantime, I am yours respectfully,

C. S. R.

MEDICINE.

On some specific remedies for Mortification, Consumption, Hydrophobia, &c.

HUMAN nature is subject to several dreadful complaints, which have baffled the skill of the most expert physicians during whole ages; but if we are to believe late accounts, the discovery of efficient remedies for most of them, has been achieved. The principal disorders alluded to were Gangrene or Mortification, Consumption or Phthysis, Hydrophobia, Chorea, Tetanus and the whole train of nervous acute affections or diseases

1. Mortification is well known to be mortal, and no palliative had even been found; amputation, when possible and done in time, was the only resource. But we have at last discovered an efficient, simple and sudden remedy for it. We are indebted for it to Prof. Meinicke, a German chemist, who discovered six years ago, the eminent antiseptic property of the Vinegar of Wood or Pyroligneous Acid. This Vinegar has the property to preserve and exsicate all kinds of animal and vegetable substances: it prevents completely putrifaction of all kind, (even after it has partly proceeded) by the mere contact with the object. This property was at first employed for preserving meat, fish &c., merely by soaking it in the Vinegar; it has been since detected that this greatest antiseptic in existence was fully adequate to prevent and remove putrifaction in the living and dead bodies. The most dangerous gangrenous ulcers are cured by merely washing them with it, mortification in a limb may be prevented by immersion in it, general mortification by a bath of it, and internal mortification by its internal use. We have thus acquired a most valuable remedy for one of the scourges of mankind. Dead bodies immersed into it become perfect *Mummies*, and it is supposed that the Egyptian art of preserving mummies, long ago lost, consisted in a knowledge of this process, or something similar. All kinds of Anatomical preparations may be made in the same way, and there is no longer any need of expensive anatomical preparations. Every kind of foul and putrified matter liable to generate contagion, may be neutralized by this acid

likewise. Such are the happy results of a single obscure discovery.

2. Consumption, or *Phthysis pulmonalis*, has been called the plague of cold countries, in the Eastern States, one fifth of the population is said to die of it, and often at an early age. The following treatment has lately been found completely efficient whenever undertaken before the last stage of the disorder. Fumigations of Tar, inhaled by the lungs. Diet, milk and arrow root, with or without sugar. Perhaps fumigations of Vinegar of Wood might be of service in the last stage of the disorder. We shall dwell again on this subject hereafter.

3. Hydrophobia. So many vegetable specifics have been proposed at various times for this formidable disorder that we have been inclined to doubt during a long while, the efficiency of the Scullcap or *Scutellaria lateriflora*; but so many facts and well authenticated statements have corroborated this property, that it ought not to be doubted any longer. This discovery ought not to be less esteemed because it was made in America, instead of Europe, and although many physicians will not yet be convinced, let us remember that the same thing happened with the immortal discovery of Jenner, and one hundred similar instances might be mentioned. The dried plant must be used in a strong decoction during a long period. It has lately been ascertained by Dr. Bogardus of New York, that it is also an efficient remedy for the singular nervous disorder called St. Vitus dance or *Chorea*, which is a kind of general nervous convulsion throughout the whole frame, and very nearly related to Hydrophobia. I venture to assert that if this is the case, as there appears to be no doubt, this valuable plant will be found equally efficacious in all other nervous disorders which have so long been the torment of practitioners, by their proteus like appearances &c. and particularly for that horrible and fatal disorder, called *Tetanus* or the Lockjaw and Locked jaw. Perhaps even for Epilepsy, which is another variety of nervous disease. It will be harmless to try, since these disorders are deemed incurable.

D. R.

Notices of Materia Medica, or new medical properties of some American Plants.

1. THE *Erythronium albidum* of Nuttall is a common plant near Lexington, where it is called Lambstongue. The root or bulb is used against the Scrophula, being stewed with milk or cream, and applied to the scrophulous sores, which it will cure. The yellow flowered species or *Erythronium luteum*, has probably the same property.—Communicated by Mr. Crockett, a medical student.

2. The Bear-grass, is not a grass; but a fine rare plant peculiar to the western states, the *Helonias angustifolia* of Michaux, which I have ascertained to be different from *Helonias* and called *Cyanotris pratensis*. Its bulb or root is employed in Kentucky and near Lexington for the cure of the Inflamed Breast: it is mashed and applied to the part as a poultice.—Communicated by Mr. Crockett.

3. The *Helenium autumnale* is called Sneezeweed in Kentucky, owing to its strong sternutory properties. If the flowers are dried and snuffed, they will occasion a strong fit of sneezing.

4. The root and leaves of the *Evonymus atropurpureus*, which are

called Arrow-wood or Wahoon in Kentucky, are used with efficiency in the Influenza, Coughs, Colds &c. in the shape of tea or decoction.

5. Dr Samuel Brown having procured and shown me the plant which is said to occasion in Kentucky the Milk Fever, I have ascertained that it is the *Euphorbia peploides* (*E. peplus* of Pursh, not Linneus) which is not uncommon on the cliffs and rocky situations in Kentucky. When eaten by cows through chance, it gives them a fever, and their milk becomes poisonous, producing the milk fever in those who drink it.

6. Many plants are called Gentian in Kentucky and used as succedanea of the foreign Gentian; they are *Triosteum major* and *Tr. minor*, *Sabatia angularis*, *Gentiana amarelloides*, and several other species of this last genus.

7. The root of the large Plantain, *Plantago major*, has lately been recommended in Europe as a good febrifuge.

8. The Water Horehound, or *Lycopus virginicus*, has lately been discovered to be an excellent remedy in Hemoptysis or spitting of blood. It is used in decoction or tea-like.

C. S. R.

SELECTION OF LATE AMERICAN DISCOVERIES.

IT is not our intention to enumerate all the petty inventions and supposed discoveries which are daily ushered, or for which patents are taken: many among them by a defective clause of our patent law, have long been known elsewhere, and by our ignorance of former discoveries, are supposed to be new. We merely mean to select a few among the most striking and original inventions, or the principal discoveries which may claim the high reward of contributing to enlarge the circle of human knowledge and ingenuity.

Physics.—Mr. Perkins has proved (in 1819) that water is compressible to a certain extent, and that the weight of 326 atmospheres, equal to 12078 cubic feet of pure water, (over each other) or the weight of 797,548 lb, will compress it one 29th part or reduce its bulk 3½ per cent. Mr. Mongez had shown ever since 1778 that water being elastic and condensible, must also be compressible; but Mr. Perkins has ascertained the degree of its compressibility. The progression of this property remains yet to be ascertained.

Physics.—Prof. Rafinesque has invented a simple instrument which he calls *Cubometer* or *Stereometer*, to measure the bulk of any solid body, stones, crystals, animals, plants &c. It consists in a square vessel, of any determinate size, from one inch to several feet in diameter, according to to the bulk of the bodies to be measured. These vessels are twice as high as broad, and a scale of the cubical capacities is marked inside; being filled with water to the exact mark of one cubic foot for instance, the body is immersed into the water, and its increase or rise on the scale shows the bulk of the body at a single glance. He communicated as early as 1817 a set of experiments made with the Cubometer, to the literary and philosophical society of New York. The principle is well known; but the application to every solid body and its facility is an improvement.

Philology.—Mr. Duponceau of Philadelphia, has introduced a new name *Phonology*, to distinguish the branch of Philology, which relates to the knowledge of spoken sounds, and the manner to express them by various letters. He has made an application of it to the English language and proved that it contains 29 simple elementary sounds, 7 of which are vocal sounds, 20 consonants and two aspirations. All these are represented by a multitude of letters, instead of having a letter answering to each sound, which renders the English (as well as the French and other similar heterogenous languages) intermediary between the Alphabetical (such as the Latin, Italian, Greek, Hebrew &c.) and the Glyphic languages, the Chinese for instance. Every English sound (or vowel) is either short or long, and four of them are also nasal. The fourth and fifth sounds are each written in twenty-one different ways! the sixth in twenty ways! &c. For instance the fourth, which he calls *az im* is wrote when long either *a, ae, ai, ao, ay, e, ea, ey, ei, eig!* or when short *a, ae, ai, e, ea, eg, ei, eig, eo, ie, u!!*

Fine Arts.—Mr. Perkins has invented a new mode of engraving, which he calls *Siderography*; it consists in engraving on hardened steel, and transmitting the impression on steel plates. The impressions are beautiful even in miniature, and may be multiplied to any extent; he has carried this new art to England, where it has met with suitable encouragement and success.

Chemistry.—Prof. Hare of Philadelphia has published a new theory of Galvanism. He thinks that the Galvanic fluid is a compound of caloric and electricity. The electricity is increased by the number of pairs of plates, and when this number is very great, as in Deluc's column, the calorific effects become evanescent; while the caloric is evolved by the increase of the surface, and he has shown that it may be very intense when only a single pair of plates, or what is equivalent to it, is used. He has constructed a new galvanic battery, on this principle, which he calls *Calorimotor*, and produces intense ignition without any electrical phenomena.

W. M.

(*To be continued.*)

LITERATURE AND VARIETIES.

The Sifter.—No. 1.

Du choc des opinions jaillit la verite'.—Voltaire.

WHAT IS WIT? Is it a mere feather as we are told by Pope? or is it the quintessence of human ingenuity? This was the opinion of Swift; but Swift was a great wit, and every one must praise his own trade, as the Cobler says.

The astonishing diversity of opinions among mankind, upon almost every subject, has always appeared to me a very striking feature of human nature, and a very useful moral propensity. If we were all to think alike, we should become probably, the most dull and insipid creatures in existence: the pleasures

of social intercourse would be destroyed, discussions annihilated, and genius instead of being elicited by the conflict of opinions, would be compelled to sink into mere acquiescence and insignificance.

But when we consider how prone we all are to build our ideas, suppositions and surmises, into assertions, and impose them as truths upon any one willing to believe us; it is to be regretted that we do not often apply to our judgment, and the judgment of others, in order to polish our taste and correct our errors. The best means of improving our knowledge and acquiring an accurate notion of every subject, consist in not being over confident in our own definitions, and trusting less in our peculiar view of things. Let us always hear what are the opinions of others, on the same subjects, and let us ever be ready to adopt them when they are better than ours.

I am an odd kind of old fellow. I have always been willing to hear, not only both sides of a question, but its manyfold sides, and I am fond of sifting the good wheat from the straw, chaff and tares, with which it is commonly mixed.

Being not long ago in a mixed company, the above question was asked and discussed. *What is wit?* It happened that not two persons present could agree in their definitions and explanations of that common term. Some of the opinions entertained by the company were really ludicrous.

Billy Silly, a dull and stupid busy body, said—Why! Wit is a mighty fine thing; I like it very much; my neighbor Dick Pany is a very witty fellow, and whenever he comes out with his witty puns I cannot help laughing.

The next opinion was given by a fat, heavy and plump faced gentleman, I really believe he was a squire (or a honorable judge:) he was then called squire Dumplin.—Sir! I opine that wit is a very useless thing; it is only a way to quiz folks out of their wits: for my part I never meddle with it, nor countenance it in my presence.—And I believed him.

A jovial and silly coxcomb, (now-a-days called a dandy,) whose name was Bob Careless, replied—Zounds, how mistaken you are! Wit is the finest thing in the world, it is the art of telling fibs without being called a liar, of making puns without breaking bones; of appearing a genius without having any.

How you misapply the term! said Jack Witless, the humble poet. Wit is the essence of fine speaking and fine writing. Swift must be believed when he says so —

Not so fast, interrupted Professor Learned, a grave and sedate gentleman: remember that Pope has said the reverse. When great men differ in opinion, it is no easy matter to conciliate them, and to form our own. It is perhaps better to remain in suspense than to decide boldly and rashly. Yet if you are willing to hear my own explanation, I conceive that it is merely the art of ridiculing every thing, both sacred and profane, and a very dangerous weapon when it falls into bad hands.

But sir! replied the poet, can any thing be ridiculed unless it is really ridiculous?

Why not? Fools can laugh at any thing, and ridicule is in fact the act of making fools laugh at each other.

I was already perplexed by so many accurate and inaccurate definitions, when a beautiful lady, Mrs. Lowit, who has the reputation of being herself a wit, increased my perplexity, saying—Wit is the flower of the mind, it blows in the sunshine of love, is nursed by the graces, and produces happy repartees.

I was not wiser than before. I had not yet given my own opinion. It is well known that I never speak, until after having heard every body. I was at last requested to emit

my thoughts. I had to choose between a feather, an essence, a laugh, a quiz, a bubble, a ridicule or a flower, unless I could pick upon a better name yet.

There was in the company a young, pretty and lively girl of fifteen, who always listened without speaking. She was seldom thought able to mix in our conversation, and her opinion had not been asked.

Pray! Miss Lucy Egery, said I to her, do you know what is Wit? Yes sir! said she; it is a pretty way of saying pretty things.

I owe you a kiss for that my pert and witty dear—I had no further occasion to sift my answer.

The next subject of enquiry was HUMOUR. I was told that it was the father, the brother and the child of Wit! It was also a star, a cloud, a stream, a spring, a puzzle, a riddle, a nonsense and *je ne sais quoi!* But asking my lively Lucy, I was answered readily—Humour is a witty way of saying witty things.

As I am not ashamed to be taught even by a child, I adopted without difficulty these concise and correct definitions; but many in our company were seen to blush. Lucy is now our young oracle in all similar difficulties.

Z.

The Querist.—No. 1.

THE ingenuity of men must often be prompted and elicited by suggestions. In Europe several Academies promulgate every year Prize Questions upon important subjects, and they reward by gold medals or sums of money, the best answers thereto.

We have hardly any thing of the kind in America as yet; but as we venture to believe that our countrymen need not be stimulated by mercenary honors, to become competitors in the field of fame, we shall venture to suggest them occasionally some striking subjects, upon which to exercise their powers. We hope that they need merely be pointed out to induce some one among our writers to undertake a reply. As all those subjects will be either new or as yet unsolved, we trust that if successfully treated, they may reflect honor on the writers. We shall publish all the replies or answers that may be communicated to us, but merely their results if they should be too prolix; or we shall be glad to see them answered through any other literary vehicle: our main object is to stimulate our fellow-citizens to mental exertions. And if only a few among our Queries may happen to draw the attention, and direct the pen of some among those who are able to apply themselves to such labours, we shall consider ourselves fortunate in having prompted them to attempt such useful enquiries and performances.

We offer them likewise as appropriate topics for debating societies, or prize questions in colleges and elsewhere. It may be found that some of them will require a deep intellect and learning to solve them with accuracy and perspicuity; but some others will demand merely a spirit of reflection and research. We hope therefore that there will be a sufficient variety to attract the attention of any one, gifted with an enlightened and reflecting mind.

1. *Metaphysics.*—What are the essential natural causes of the existence of the Divinity? Are there any other besides efficient necessity?

2. *Ditto.*—How do spirits act

upon bodies? What are the links of their connexion and mutual influence on each other?

3. *Legislation.*—If an excessive accumulation of property is an evil in Republics, how is it to be prevented or mitigated, without impairing human industry and activity?

4. *Ditto.*—Is it impossible to prevent betimes and forever the evil and propagation of Pauperism in the United States, without endangering natural and civil liberty?

5. *Ditto.*—What is the real and relative value of elective suffrages in different individuals, according to their veracity, morality, acquirements, abilities, property, and every other requisite?

6. *Ditto.*—What share or influence ought women to have in the enaction of the laws, which they must obey?

7. *Ditto.*—What are the best means to induce the majority of the citizens of the Southern states, to wish for the effectual removal of the evils of slavery?

8. *Ethics.*—Are there any effectual means to compel or persuade all men to become equally good and virtuous, according to their moral capacity?

9. *Ditto.*—Since perpetual peace and union must become the great pillars of human happiness, how can these blessings be secured permanently?

10. *Physics.*—What is the quantity of caloric, electricity and light, existing in our atmosphere, at different times, with their specific and relative bulk, compared with the air?

11. *Ditto.*—What is Arome, or the principles of Odors? In what state does it exist? What are its qualities, properties and elements?

12. *Geology.*—What has been the most ancient state of our continent, and its gradual passages to the present state?

13. *Ditto.*—What are the remains of ancient volcanoes of all kind, both sub-marine and terrestrial to be met with in the United States?

14. *Zoology.*—What are the species of fish, equally found in the various seas and inland basins of the United States? And how many are peculiar to each aquatic region?

15. *Ditto.*—What are the Quadrupeds of North-America really and completely identical with those of Europe and Siberia?

16. *Botany.*—Where are the central sources of the Vegetation of North America? And how have the plants of our Flora gradually spread and mingled?

17. *Ditto.*—What are the causes of the natural rotation of wild trees and plants, and of their alternative appearance and disappearance from certain tracts and regions?

18. *History.*—What is the real origin of all secret societies, and what influence will they yet have on mankind?

19. *Ditto.*—What scattered fragments do we possess of the earliest history of the United States, before the settlement of the colonies?

20. *Philology.*—How many radical languages exist or have existed in North America? And how many dialects have they produced?

21. *Ditto.*—What are the principal affinities between the American languages and the ancient languages of Asia, Europe and Africa?

22. *Medicine.*—What could prevent the formation of the bilious habits and diseases so common in many parts of the United States?

23. *Ditto.*—Since consumption is the plague of our cold climates, how can we remove this evil, and prevent its increase?

24. *Ditto.*—Since the uses of spirituous liquors and tobacco are pernicious habits, how can they be eradicated among us, and their fascinating influence destroyed?

25. *Agriculture.*—What are the

best means to increase the revenue of our lands, without an increase of trouble or expense?

26. *Ditto.*—What are the comparative clear profits arising from the various cultivations in the United States?

27. *Ditto.*—What new cultivations could be introduced among us to advantage, comparing them with our present ones?

28. *Mathematics.*—Has the mathematical point a material existence, shape and size? If it has, is it to be overlooked or calculated in perfect mensurations? If it has not, what is it?

29. *Ditto.*—What is the relative length of a right line and the most simple curved lines, the ends of both reaching the same points?

30. *Literature.*—What is the essence of Poetry, among several nations? And could English poetry be yet improved or enlarged, by the adoption of any other national poetry or new poetical modes?

31. *Ditto.*—Could Literature be submitted to order and method as Science, and how?

32. *Ditto*—What is the relative value and effect of the various styles in different cases and on different minds?

W. M.

Female Free-Masonry—No. 1.

Initiation and Catechism of the Female Apprentice, translated from the sacred language, by a Holy Brother of the highest Degree, O. I.

TO THE LADIES.

THERE are four thousand years that female Free-Masonry or the Masonry of adoption, has existed under various names and in various places; yet among us where the female sex enjoys equal liberty and consideration with men, it has not yet been introduced. We are punished for it by the *ennui* which their absence throws over our meetings. It is time that we should allow our partners to acquire like us the high gifts of the celestial light, and that we should deem them equally susceptible of the needful discretion and powers. If this hint should meet the approbation of our enlightened brethren, or a few among them, and if it should excite the natural curiosity of you, Ladies, female lodges might soon be formed.

Meantime in order to prove the propriety, usefulness and commendable purposes of this institution, it will be sufficient to transcribe the ritual of the first degree of female free-masonry, at least such parts thereof, as may be laid before the uninitiated. It will give you a more correct idea and insight into the views and state of the society, than elaborate recommendations.

This ritual of reception and instruction is translated from the hieroglyphic language, used in the female lodges of Germany, Denmark and France; but somewhat curtailed of unimportant details.

Ritual of Reception or Initiation.

The candidate is conducted in the dark room, and left there alone while the lodge is forming.

She is introduced blindfold in the lodge by the I..... —The W... asks the usual pledges and questions. When there is no opposition nor difficulties, he says, *Blessed be our*

labours! we are going to give another prop to virtue, let us rejoice and applaud.

He then chains the hands of the candidate, and she is led to perform the journey, after which her eyes are opened to the light, she receives an admonition, and the usual questions are asked: if she answers yes, her hands are freed, the gate of virtue is opened to her and she swears on her knees as follows:

"I promise and swear in presence of the great Architect of the Universe, who is the only God, and before this meeting of brothers and sisters, to keep forever faithfully in my heart all the secrets of masonry, which shall be imparted to me, under the pain of being dishonored and despised in this world, and smitten by the sword of the angel of wrath in the next. May a share of the Holy Spirit of God light in my soul to make me reach the highest degree of virtue. So help me God. Amen."

After this oath, the sign, token and words are imparted to her, and the W . . . says: *Your name is now changed into sister, receive my congratulation, and go to make yourself known to your sisters.*

On her return she receives the decorations, is led to her seat, and hears the oration of reception and instruction.

Ritual of Instruction.

Query. Are you Apprentice?

Answer. I believe it.

Q. Why do you not say yes?

A. Because yes is a holy word, not to be often used, and that an unworthy apprentice as I am, cannot claim nor be assured as yet of perfection and virtue.

Q. How have you been received?

A. By Five.

Q. What does five mean?

A. The five perfections . . . . .

Q. Where have you been received?

A. In a place inaccessible to profane eyes.

Q. What have you seen?

A. Nothing that I could understand.

Q. Are you satisfied?

A. All my brothers and sisters may judge of it.

Q. How can they?

A. By my eagerness to be received, and my happiness since.

Q. Do you promise to keep our secrets?

A. What I do is the pledge of it.

Q. Give me the sign of apprentice.

A. I obey, you understand me.

Q. What are the words?

A. . . . . . .

Q. What do they mean?

A. School of Virtue.

Q. Which is that school?

A. That in which I am.

Q. How did you reach it?

A. By the help of a kind sister who became my guide, led me to the temple of virtue; its brightness has dispelled the darkness in which I was.

Q. What did you see there?

A. Solidity, honor, friendship, light and virtue.

Q. What do you expect to meet there?

A. The return of the golden age.

Q. What are the duties of an apprentice?

A. To labour, obey and be silent.

The W . . . shall then say: *We have laboured, we have obeyed, and we have been silent. Let us close this lodge of adoption and reception, doing our duty by five.*

The Brothers and Sisters clap their hands, and the officers say: *The lodge is closed.*

In the lodge of labour, every thing is conducted with equal propriety and the utmost delicacy. The presence of the female sex renders them lively, pleasing and entertaining.

O. I.

Western Literature.

Works published in the Western States in 1820.

WE propose to give a regular list (hence forwards) of all the works which shall be published beyond the Alleghany mountains, and it would be well if their authors would communicate to us their titles at least: meantime we shall begin by noticing some of those published last year, and may occasionally venture to give a short judgment on them—

Sketches of Louisville and its environs, to which is added, a Florula Louisvillensis, by Dr. H. MacMurtrie, with an appendix on the Earthquakes experienced from the 16th December 1811, to the 7th February 1812; by T. Brookes, &c. —Louisville, 1 vol. 8vo. with a map. —An uncouth compilation full of errors: the new facts are so drowned in them that they cannot easily be perceived.

Viola, or the Heiress of St. Valverde, an original poem in 5 cantos, to which is annexed, Patriotic Songs, Sonnets, &c. by a Lady of Philadelphia, author of Adelaide.—Louisville, 1 vol. 18.——Rather bad poetry; but not worse perhaps than Scott's Lay of the last Minstrel, and in the same style.

An Anniversary Discourse on the state and prospects of the Western Museum Society, delivered in Cincinnati at the opening of the Museum, on June 10th, 1820. By Dr. Daniel Drake.—Cincinnati, pamphlet, in 18.—An elaborate oration on a commendable subject and occasion; it would be well if the author could unite practice to theory.

The Wreath, or Collection of Original Lyric Poetry, by a Lady.—Lexington, 1 vol. 18.—A few pieces are pleasing, some are tolerable, many defective.

An Address to the Committees of Education of both houses of the Legislature of Kentucky, on the state of the School of Medicine in Transylvania University, by Dr. Charles Caldwell, &c.—Lexington, pamphlet, 8vo.—Impressive appeal to the feelings and sense of a legislative body.

Ichthyology of the river Ohio, or Natural History of the Fishes inhabiting that river and the tributary streams. By Professor C. S. Rafinesque, &c.—Lexington, pamphlet, 8vo.—This contains a scientific account of more than one hundred new fishes, undescribed before.

Annals of Nature, or Annual Synopsis of New Genera and species of Animals and Plants discovered in North America. By Prof. C. S. Rafinesque. First number.—Lexington, pamphlet, 8vo.—This little tract contains the synoptical descriptions of 25 New Genera and 124 new species, of which 20 new genera with 81 new species belong to the Animals, and 5 new genera with 43 new species to the plants.

The American Bards—west of the Mountains, pamphlet, 8vo.—A satire without much judgment and still less talent. Another satire has appeared in Philadelphia this year, under the very same title, by *Peter Atall*, which evinces more just views, ecclectic ideas and some poetic talent.

Theses metaphysicæ, ethicæ, politicæ, mathematicæ, philosophicæ, rhetoricæ, grammaticeque, Universitatis Transylvaniensis, &c. &c.—Lexington, pamphlet, 8vo.——They were proposed by the candidates for the degrees of Master of Arts, on the 4th of July.

The General Instructer, for the duties and offices of Judges, Justices of the Peace, Sheriffs, Coroners,

Jailors, Jurymen, &c. By John Bradford.—Lexington, 1 vol. 8vo. —A useful compilation.

The Laws of Kentucky, collected by John Bradford, and brought down to the year 1820.—Lexington, 3d vol. 8vo.

W. M.

The Sphynx.—No. 1.

I. Endeavour to read the following Inscription, by three strokes of the pen.

L. N. T. I. O. K. T. U. K.
F. E. O. W. N. E. N. O. Y.
I. E. X. N. F. G. T. C. N.

II. *The Square of Love.*—How many times can the word LOVE be read in it?

I LOVE YOU
L L E L
O L O V E O
V L O V E V
E L E E
Y O U LOVE M E

III. What does the word LOVE mean in Latin, Italian and French? And why?

IV. What do these lines mean?

M. N. R. A. P. L. O. N. T. E. U.
S. S. M. H. D. A. L. O. A. V. E. I.

V. Try to read the following sentence.

T. E. W. N. M. A. W. L. P. E.
S. E. F. S. B. T. D. E. O. S.

ŒDIPUS.

Polygryphs.

I VENTURE again to introduce to the fair daughters of Kentucky, a few sprightly children of this western Proteus, and I hope to present them at a venture period with another member of this *Sphynxian* family, lately sprung from my store of fancy and imagination. This new puzzling being is an amiable female, the lovely sister of the western Polypus. I have determined to call her *Anastrophe*, which name implies in our vulgar language, something like topsy-turvy, and will serve to denote the strange propensity which she has of walking indifferently on her feet or on her head!

NO. 1.—TO MISS M. J.

I have three heads without a heart,
With one of them I am a grass,
With another I am a man,
And with the last I am a bird;
But without any, I'll become
The worthy swain who doats on you;
Cut off his foot, and you will find
What he asks and expects from you.

NO. 2.—TO MISS N T. BY MR. N. N.

I have a heart and I am one
But although like it, you have none:
Yet in your breast, I am revealed,
And ever wish to be concealed.
Cut off my hand, I am yourself,
And ask your own for my own self.
Else through the woods I ramble and rove
In search of food or blissful love.
This may puzzle you, yet is not new
And although strange it is all true.

NO. 3.—TO MRS. E. C.

I have five heads, and but three limbs,
When with the first, I fly about,
Yet am no bird; but with th' second
I run and climb, and catch the last.
While my third head makes me heavy,
And with my fourth I'm tread upon.

CONSTANTINE.

The Monkeys.—No. 1.

TO THE EDITORS OF THE WESTERN MINERVA.

LET US MIMIC OUR BETTERS.

I HAVE the pleasure to send you the prospectus of a ludicrous and entertaining Journal, to be ushered from this press as soon as twelve subscribers will be procured. The name which we have pitched upon is *The Occidental Owl*, or *Ohio Salmagundi*, and we contemplate it to be the night-cap of your Minerva. It will appear in lunar numbers. to be issued at midnight, in the last quarter of the moon, at the rate of an Eagle per annum.

The Editors will be the most distinguished members of our faculties, such as Doctors Symmes, Proteus, Dragon, Cleon, Mandrake, Postsedent, Puffer, Cudgel, &c. &c. besides myself, and a score of eminent literary characters of this town, who are known as far as Botany Bay and the Moon, where we have established agents for our Owl.

We consider it a pity and presumption that Lexington, a paltry town compared to ours, should attempt to become the western Athens, and if we cannot prevent Minerva from dwelling there, we are determined at least to possess her Owl.

The prospectus which I send you, gives but a faint idea of the high, exquisite, commendable and deep subjects, upon which we are to enlighten the public of this world and the moon, and as it is of some consequence that you should fully appreciate the merits of your future night-cap, I venture to send you an account of the papers and tracts which we have on file

The genealogy, birth and history of the Occidental Owl, showing that he comes from the true Owl-creek breed; written by his own father and corrected by myself.

An enquiry into the possibility and necessity of Sunshine becoming Moonshine, and Moonshine mere Twilight or total Darkness; in order to enable Owls to catch their prey. By Dr. Daniel.

A memorial on the claims of Cincinnati, to be called the Athens of the west, because it has hatched the Owl of the Western Minerva, besides many other Owls, and some eminent philosophers of the Athenian schools. By Dr. Postsedent.

An Essay on the impossibility, inutility, and folly of making canals in Ohio and in the United States. By Dr. Bucktail.

A full Illustration of the Symmerian theory of hollow spheres, by Dr. Symmes, with an appendix on hollow heads, by Dr. Cleon.

On the important art of distorting every thing to suit a peculiar purpose. By Drs. Dragon and Scurlips.

An enquiry into the meaning of the words *Old* and *New*, the former implying what we never knew, and the latter what we never will know. By Dr. Last.

Review of wonderful discoveries never made by us. By Raphael Nobody, Esq.

On the necessity of procuring patents for mending stockings and feeding muscles. By Sanco Shellbark, Esq.

The art of lecturing on what we know, and what we know not. By Dr. Proteus and myself.

The art of thinking upon nothing, and of becoming blind through laziness. By Dr. Puffer.

The Art of Cudgelling, and disturbing the sleep or rest of our neighbors. By Dr. Fairplay.

The new theory of Egotism. By Dr. Cudgel.

On the propriety of despising every body or becoming the monkeys of those who cannot be despised. By Dr. Cleon.

The art and tricks of self-appointment. By Dr. Forward.

A lecture on the usefulness of unnoticing the objects which we cannot see without using spectacles. By the Rev. Drs. Limejuice and Schoolboy.

On the rational religion of the Rationalists. By the Rev. Doctor Drinkhard.

The Ichthyology of Cincinnati, containing twelve old kinds of fishes. By Dr. Learned.

On a new way of paying debts. By Dr. Books.

On the necessity of importing friends, when we have none at home. By Dr. Stilts.

Notes on 150 errors, misnomers, oversights, blunders and mistakes, in a picture of a town on the banks of the Ohio. By Dr. Telescope.

P. HYSTRIX, M. D.

Cincinnati, Dec. 1820.

Future Epitaphs.

By Doctor PORCUPINE HYSTRIX, *of Cincinnati.*

I.

Here lies a Maid
Who died on the 17th July, 1835,
At the age of 67 years.
MARTHA MARGARET MAGDALEN LOSTIME
Was her name.
In her youth she was a beauty,
If a coquette may be one—
At fifteen she pleased every body,
At twenty she was pleased with every body;
But at thirty—she displeased every body,
And at forty was displeased with every body.
The remainder of her life was spent in regrets for the past
And schemes for next life.
While in her bloom
She was too proud to become a wife,
And to obey instead of ruling—
Yet she dealt hopes on every side
Until she lost her own;
But not her pride.
Fair Readers! beware of her fate.

II.

Under this black stone
Lies a body without a soul!
CLEON DRAGON, M. D.
Who departed this life, the 5th January, 1823,
At the early age of 35 years.
Mourn Ohio! weep Cincinnati!
Alas! your greatest pride is gone.
But he has left you a picture

Worthy of you and him.
Alive he had no friends—
Has he any below?
Do not come too near,
Lest the gall of his bones
Should yet reach you.
Away! Away! Away!

III.

White slab! what dost thou cover?
The bones and soul of a useful man—
WILLIAM CREEPER.
He never did any harm,
But this was the only good he did.
He lived 60 years,
Eating and drinking,
Sleeping and dreaming,
Toiling and romping.
What a useful man!
He died the 8th September, 1827.

Fragments of Correspondence, &c.

Fragments from a letter of Mr. BORY ST. VINCENT, *member of the Academy of Sciences of Paris, to Professor* RAFINESQUE, *translated from the French.*

BRUXELLES, 10th August, 1820.

I experience a great satisfaction to find myself in regular correspondence with the learned men of the Western States of America, of which I knew already the talents and zeal: situated in the centre of a continent which has only been visited and explored by casual visitors, it is in their power to do much for the increase of Science and Knowledge, particularly in the range of Natural Sciences. Whatever they may send and communicate to Europe will be received with avidity and highly valued.

What I hear of the progress of Transylvania University, is in harmony with the rapid evolution of every thing in the United States of America. Civilization and science have been transplanted there quite grown and perfect, as our Apples and Peaches. They must certainly progress still further when fostered by your liberal institutions, and cultivated by your learned men. In Europe, our civilization was created wild and sour as the fruits of our Forests. Time alone has unfolded it, and in its long period of maturity, it is become nearly rotten; we are really in that respect the most corrupt people in existence; but our corruption is concealed under the finest clothes.

We have established here a Scientific Journal, under the title of Annals of Physical Sciences (Annales Generales des Sciences Physiques:) we have already reached the 5th volume, and it bids fair to succeed, although in competition with so many in France, Germany and England; but the liberal plan

which we have adopted has insured its success: and we have subscribers in all the parts of Europe. It is highly gratifying that you have approved of its plan and prospectus, & promised to become one of our contributors. Endeavour to procure us correspondents and subscribers in the Western Continent: it is not for the sake of gain that we labour, since all our profits are employed to improve the operation. We have to struggle against the events, and the spirit of the times, which is entirely drawn towards Politics, and against other Journals which plunder us, often without quoting, and may thus give cheaper what cost them no labour. But it is no matter, we labour for Science and we hope to surmount all those difficulties.

It is no wonder that the Linnean Society of London has neglected to publish your Memoirs. The English destest the Americans, and it is customary in England to reject or repulse whatever comes from a foreign country and particularly from America. The German will do the same, and as for the French Journals, they will prefer to translate or varnish your discoveries, and publish them under their name, than to quote yours. It is such shameful abuses that we wish to prosecute. All that comes to us, bears the name of the author, this is for us a sacred duty. Our annals will illustrate your fair and free continent. We shall tell to France, Germany and the whole of Europe, that upon the banks of the Ohio and Kentucky, there are learned men who labour much, but have not many opportunities to spread their labours and discoveries in Europe; we shall point out that many discoveries given out here as European, were often first made in America. Their writings will all be translated and analyzed by us, and your Original Memoirs will be published monthly. We shall begin with your valuable Memoir on the Bivalve Shells of the Ohio. We wait with impatience for your natural history of the Fishes of the Ohio: if you send us their figures, they will be engraved for us. Your Annals of Nature will be published entire, &c.

I have resolved to publish a Cryptogamic Iconography by the means of Lithography, which will not cost more than common printer's text, and in four years may include 8000 figures. I shall send you all my works, and all that you ask me. Your shells, fishes, insects, and plants will be equally acceptable.

B. St. V.

"Annals of Physical Sciences.'

THAT Journal is published in Bruxelles, (the metropolis of the Netherlands,) in French, by Messrs. Bory St. Vincent, Drapiez and Van Mons, in monthly numbers, forming a volume of 400 pages 8vo. every three months, each number contains four plates, generally colored. The subscription price is fifty francs per year, (nearly $10.) Communications are received in Latin, Dutch, German, English, Spanish or Italian, and translated. Every contributor who sends yearly six memoirs with figures or ten without any, is entitled to a free copy of the four yearly volumes.

Prof. Rafinesque has been appointed agent for this valuable Journal, which contains articles, mostly original, on all the natural Sciences. He will receive subscriptions and communications *for the same*, free of postage, or they may be sent direct to Bruxelles, via Antwerp, directed to Professor Van Mons, &c.

Zoological Illustrations, by W. Swainson.

William Swainson, Esq. of Liverpool, member of the Linnean So-

ciety &c. and who has travelled in Greece, Sicily and Brazils, was to begin, in October, 1820, the publication of a splendid work in London, under the title of *Zoological Illustrations.* It will appear in monthly octavo numbers, each containing 4 highly finished colored plates of new, unfigured or imperfectly known animals. birds, fish, shells, insects, &c. all drawn and painted by the author, with descriptions, remarks, &c. The price will be two shillings and sixpence sterling per number or about half a dollar. Prof. Rafinesque is also empowered to receive subscriptions for this work.

Fragments of a Letter to Mr. Bory St. Vincent *at Paris (member of the Academy of Sciences of Paris, author of Travels in the Islands of Africa, &c.) on various subjects.—Translated from the French.*

Lexington, 7th January, 1821.

I send you via New Orleans, many of the objects which you have asked of me, and particularly a large collection of plants from this state, and shells from our streams. I cannot send you as many of these last as you request, because I have been asked one thousand specimens for the museums of Liverpool, London and Paris, and I must endeavour to comply with the request.

The edition of the first and second volume of the Western Review and Miscellaneous Magazine is exhausted, and cannot be had; if a second edition is printed you shall receive them.

I send you at last my Ichthyology of the River Ohio, containing as many as one hundred and eleven species, of which I have myself personally seen, described and figured about 90. This branch of Natural History has lately received great increas in this continent; Dr. Mitchell has ascertained about 100 new species of atlantic fishes, Mr. Lesueur over 150 species of fish from our great Lakes, to which I have added as many from various quarters; 400 new species discovered within five years!

There is here as elsewhere a set of unfortunate individuals, who have two eyes; but cannot see: their minds are deprived of the sense of perception: they are astonished and amazed at my discoveries, are inclined to put them in doubt and even to scoff at them. The art of distinction is entirely unknown to them; they are like the uncivilized savages who call cabins all our various buildings, let them be huts, cottages, log-houses, brick-houses, stone-houses, barns, churches, palaces, jails, colleges, capitols, &c. Thus our Cat-fishes, eels, shads, sturgeons, &c. are for them mere fish to fill their stomach! and moreover they are all of European breed, and were carried here by Noah's flood direct from the Thames, the Seine and the Rhine!—I let them rail to their heart's content, and I laugh at them as much as the members of the French Institute and the British Royal Society, do at the marabouts of Morocco and Arabia, who contend to this day that all knowledge is in the Alcoran! and of course in their own brains.

I have sent you during last year and by various opportunities, 21 memoirs for your general Annals of Physical Sciences; they were

No. 1. Principles of the System of the Universe.

2. Monography of the Bivalve Shells of the Ohio, with figures.

3. Prodromus of a Monography of the Roses of North America.

4. Prodromus of the Fossil Turbinolites of Kentucky, by Mr. John D. Clifford and myself.

5. Remarks on the genus *Houstonia*.

6. Ditto on the G. *Eustachya*.

7. Analytical view of the Orders, families and genera of the natural class *Endogynia*, sub class *Corisantheria*.

8. Remarks on the natural affinities of the genera *Viscum*, *Viburnum* and *Samolus*.

9. Remarks on the Polystomous and Porostomous Animals.

10. New notices of Natural History.

11. Remarks on some new hybrid animals.

12. Remarks on some ichthyological errors.

13. On a new species of *Manis*. *M. ceonyx*.

14. Correction of the genus *Lysimachia*.

15. Synandrical Nomenclature.

16. Description of a new Spider, *Tessarops maritima* with fig.

17. On two new genera of fossils from Kentucky *Endolobus* and *Sutorites*.

18. On a new species of mole, *Talpa sericea*.

19. Remarks on the family of Convolvulaceous.

20. Descriptions of two new genera of Cephalopodes, *Anisoctus* and *Todarus*.

21. Classification of the Antipedes among the Cephalopodes.

I now add thereto seven other memoirs, which are

22. Analytical classification of Vegetable Odors.

23. Designations of the durations of Plants.

24. Florula Mandanensis, or description of 70 new or rare plants, collected near the Mandans on the Missouri, by Mr. Bradbury.

25. Classification of the Sharks and Skates, with four new species and fig.

26. Descriptions and figures of twelve new Atlantic fishes.

27. Illustrations of twelve new genera of fresh water fishes from the United States, with fig.

28. Descriptions of many new spiral shells from New York.

I hope to send you this year about twenty additional memoirs and tracts for your Annals, several of which are already partly prepared, such as the natural history of our Salamanders, the descriptions of our western spiral shells, both from our land or fresh waters, the natural classification of all the American genera of plants of doubtful affinities, &c.

It is only in Europe that my labors and discoveries may be fully appreciated: here I am like *Bacon* and *Galileo*, somewhat ahead of the age and my neighbors; but a time will come, and perhaps within a short period, when such labors as mine will meet with general approbation, even here, as they may now do in Europe. I am however happy to perceive that this apathy and reluctance for scientific researches is very far from being general: we have already at this early period of existence of these western states, as many enlightened citizens and writers as in any part of Poland and Russia of equal extent, already more than in our southern states, and will soon rival and surpass the middle or eastern states.

We have lost this year two of the most zealous friends of knowledge in Lexington, both worthy contributors to our Western Review, Mr. John D. Clifford an eminent antiquarian, geologist, &c. and the Rev. Mr. Birge, a young clergyman of the most promising talents as a scholar and a writer.

You wish to know who are our writers: we have very few as yet, and since most of them wish to keep

their names concealed, it would not be well to drag them forth before the public; they shrink from the light as yet, and they are perhaps in the right, since as soon as a writer becomes somewhat eminent or displays the least glimpses of genius, he is assailed by a host of revilers and croaking frogs.

The Western Review has been attacked by the most contemptible sophisters, aristarchs and moles; but thrives and goes on without minding them. The Western Minerva has been threatened before her birth; but the Egis of Wisdom will shield her against all these paltry Owls or rather *Whip-poor-wills*, which live in the dark and now and then utter their lamentable and dismal cries.

I have not been spared of course, and so much has lately been said against my labors, &c. that they would endeavor to make me believe that I am a great man, since they put me on a level with our most eminent philosophers, such as Franklin, Rush, Jefferson, Clinton, Mitchill, &c. who have been equally assailed and slandered by turns. But the good sense of the people makes amends for this slight inconvenience: fools laugh and grin, while the wise shrug their shoulders and smile at them. The American nation has been accused of vanity, and this vice has been called our national sin; but if we have a national vice, we have also a national virtue, this is *good sense*, which cures all evils by degrees, and to which an appeal is seldom made in vain.

The state of Kentucky which is the oldest and most populous in the western states, has taken the lead in western Literature; and Lexington the seat of the University of the West, (the only one as yet in complete operation west of the mountains.) is become the central focus of it. The state of Ohio, which is the next child of the west, has not yet been able to rival us, and all the attempts made there have been ineffectual; but they try to mimic us in every thing. Our medical school was hardly established when they attempted another at Cincinnati, within eighty miles of this town, which has begun to go in operation with about twenty students, while we have over ninety. They have three or four embryos of Universities which are mere grammar schools! I wish them well with all my heart, but I wish also that they knew how to go about it and would not mislead and deceive. Many of their puffs are mere tricks, for instance, they have established a Museum, which has issued proposals of exchange; but when applied to, they had nothing to give, but were very greedy to receive! How different has our Museum behaved! It has sent during last year with my assistance, over two thousand specimens of natural productions to England, France, Holland, Switzerland, Baltimore, New York, &c. in anticipation of proposed exchanges.

You will perhaps be glad to hear that there are two writers of some talent in Ohio: Dr. Drake of Cincinnati and Mr. Atwater of Circleville. The former has shown himself an author of capability in his first work called *Picture of Cincinnati*; although that work is not free from defects and even errors: but he has not published any thing since, except small rhetorical pamphlets: he aims at knowledge however, and if he does not know how to reach it, it is perhaps because he has a share of the unfortunate short sight.

Mr. Atwater is an antiquarian and geographer: he has lately begun to explore and describe the Alleghawian antiquities of his state in the transactions of the American Antiquarian Society, and he has in contemplation a general description of the state of Ohio. He is an able

man ; but a diffuse writer, his style being deprived of order, perspicuity and elegance.

It is a pity that these gentlemen should appear to labor under the moral diseases called selfishness and conceit, adding thereto a proportionate share of jealousy of each other, and every body else who may attempt to be on a par with them. Each would wish to be the only writer of eminence between the Alleghanies and the Mississippi! How deplorable! If they should acquire and join the happy gifts of benevolence, liberality, amability and correct perceptions, to their zealous endeavors, they might soon become the pride of their state.

There are throughout the western states, many enlightened and learned men, who study nature or cultivate the Muses, without ever publishing any thing. I have met them at Pittsburgh, on the banks of the Ohio, the Wabash and the Kentucky. I wish they could be induced to communicate their researches or effusions to the public: they would soon begin the first era of our Literature. I hope they will be inclined to join us in our endeavors ; every thing must have a beginning, and their appearance shall be hailed by all the friends of letters and knowledge.

But let them beware to prostitute their talents to the cause of Ignorance, by satirical or ironical momentary effusions, which are sure proofs of bad taste and the harbinger of malignity. Those poetasters, sneaking critics, and burlesque scrawlers, which are now the bane of literature, will disappear gradually before them as the fog before the blaze of a bright summer sun.

I will conclude by two anecdotes which will prove how easy it is to dispel these mists of literature, and how completely their authors may be hoaxed. I have lately had the pleasure to exercise over some of them, the most perfect *mystifications*; they fell into the snares like turkey buzzards, and I have enjoyed the fun to quiz the quizzers!

In the first instance I was challenged by a champion of dead languages to write him a letter in one of them : I sent him merely two lines in one of the Oriental languages (the —— language,) and unable even to know what it was, he took it for gibberish, and made a fool of himself in an unintelligible answer. When I explained the lines, he became ashamed of himself and has been shy ever since.

The second instance is still more ludicrous. I had often been attacked in the Cincinnati papers, and some one said once that it would be more useful to introduce a new article of industry, (meaning probably some new patent frying pan) than to discover one hundred new fishes fit to fry. In order to quiz these fishmongers and fish eaters, I threw out a small bait, properly mixed with two other ingredients of unexceptionable appearance. The bait was so tempting and so well disguised that the fishes were caught readily! It consisted in a proposal to teach the inhabitants of the banks of the Ohio, the art of compelling their huge muscles to produce pearls. The fishmongers and musclemongers of Cincinnati and elsewhere thought that I was in earnest and hoaxed themselves completely, turning in ridicule my proposals &c. The fools are such ignorant folks, that they do not even know that this process is as well known in Europe and Asia, as the art of making and mending shoes ; but seldom produces enough to feed the cobler. Yet Linneus was made a knight of the Polar Star by the king of Sweden for having revived the process. I do not expect such honor here, as we have no knights except Templars and Quixotes ; but we have a crowd of Squires and Sanchos, some of

which would be more usfi to govern Barataria than the Spanish clowns. I hope however that these Cincinnati and Ohio Sanchos, will elect me President of their learned club, in order that I may give them a lecture on the arts of mending shoes, fishing pearls, carving cameos, baiting and frying fish, getting patents for new frying pans, inclined planes, water wheels, museums, and so forth. Yet I am afraid that they would not believe me now, even if I was to tell them that Cincinnati is a fine city in Ohio; they might probably say that it is not fine, but superfine, that it is a town and not a city, nor is it in Ohio, but in the state of Ohio or on the banks of the river Ohio! Oh Wiseacres and silly Sanchos! You are welcome to have your way, bad as it is.

C. S. RAFINESQUE.

Fragments of Letters from Lexington.

BY A LADY.

Western Athens—Society—Parties—Balls—Belles and Beaux.

I have been greatly astonished by the number of periodical Journals published in this town.—This must be ascribed to the fact of being the seat of a University.—There is a magical spell in this name, which calls forth into existence literary attempts.—And although a want of perseverance or other casualties often blast them at an early period; yet there is something cheering in the sight of these youthful children of fancy.—I cannot forbear to hope that some of them will escape premature death and reach at last a vigorous maturity.

The surname of *Athens of the West* has already been given to this town, and methinks on very plausible and reasonable grounds. There is certainly not a single town west of the mountains that can rival with it on that score. Pittsburgh, Cincinnati and Louisville are mere commercial towns, and all the attempts to establish there permanent seats of learning have failed.—Let Pittsburgh become the Manchester of the Western States, Cincinnati their Liverpool and Louisville their Bristol; but Lexington must be their Edinburgh.

Lexington contains less of 6000 inhabitants and supports four newspapers and four literary Journals.—It occurs to me that if Philadelphia, New-York or Boston, which contend for the title of American Athens, wanted to deserve it, they ought to support a proportionate number of Journals, according to their respective population.—You know that in this age of periodical criticism, this ought to be considered as a fair argument.—For instance Philadelphia which reckons over 100,000 inhabitants ought to muster by an easy rule of three, about 66 newspapers and as many literary Journals, while only 20 newspapers are published there and about 10 literary Journals, if I remember right. The conclusion would be obvious and the proud Philadelphia ought to give up the palm of periodical literature to Lexington. The same remark applies to Boston and New-York.

There are here besides, as many or more learned and cultivated minds (in proportion always) than in any atlantic cities. Even our sex vies with men in acquirements.—Your ideas of Kentucky are yet

connected with deep woods, barrens and buffaloe hunters.—But how mistaken!—The scene is totally changed, and in this town at least nothing is seen but elegance, refinement and accomplishments.—I mean among the well bred and educated classes, although there are yet occasionally faint glimpses of roughness and clownishness even among them, but these exceptions are few and far from being approved of

The Society is excellent, we enjoy a delightful social intercourse, and some puritans might deem it inclining towards dissipation We have often large Parties and Balls. —It is customary here to give them on several occasions, to a bride, to a stranger, on changing lodgings, on our national days, in return for such favors.—These parties are commonly very agreeable; but they are not deprived of a degree of formality and monotony, which makes them become tiresome after awhile.—I will attempt to describe you one of them, and as they are all alike, the only variety consisting in the number of faces rather than their diversity; since, by the bye, we almost always meet the same persons at the whole of them, it will convey a tolerable idea of the whole.

This Party was given by Mrs. . . . . .—It is always the lady who invites and of course presides.—A crowd of one hundred human faces or more were collected, the sexes being nearly equally divided—The ladies were ushered in the rooms by a couple of gentlemen ushers, and comfortably seated along the walls, to be gazed at by the flock of gentemen standing in the middle of the rooms, and to enjoy the conversation of their neighbours, and such gentlemen as condescend to pay their respects or are introduced to them—Meantime the waiters brought the Coffee (although these parties are called Tea-parties, Tea is very seldom offered) with the usual appendages cakes and relishes. These poor waiters found it rather difficult to go through the crowd—After the coffee came the sweetmeats, next the wines and liquors, after which followed the desert, consisting in fresh and dry fruits—Will you believe me when I tell you that we have had sometimes even Dates brought from Mogodor all the way to Lexington; but Oranges are great rarities—Thus there is no lack of good things, and those who are fond of light food, may cram themselves at pleasure—After the meal (it is indeed a better one than many heavy Dinners) we had some musick. Some young ladies played on the piano and Mrs. . . . . sung beautifully. Those who were fond of harmony crowded round the singers, and afterwards the company divided itself in small groups or *Coteries* to enjoy a kind of private conversation—But no one can shine to advantage in these circles, since it is ten chances to one that the best *bon-mot* will only be heard by a couple of neighbours; those however who can say nothing but stupid and dull things, enjoy the advantage to have few witnesses—The whole pleasure, if pleasure it is, lasted only three hours, beginning late and ending early, towards 10 o'clock—We retired after bowing to the good lady who had the high gratification to entertain us, at the expense of her pantry and . . . . . .

There are some other lesser kinds of parties, which are less formal and more animated, they are called private parties, happen with or without invitation, and are principally intended for the gratification of young folks, who amuse themselves innocently in twenty different ways—Card parties are not fashionable here.

The Balls would be well enough, if the fiddlers knew how to accord, and if some variety was introduced among the dances.—These eternal

Cotillions have the sway here as with you, nothing else is taught or heard of here, and they make the Balls too dull by far for me—It has often occurred to me to ask myself why the pretty English country dances are gone out of fashion? and why the lively German, Polish, Russian, Spanish and Italian dances are not yet come in fashion?—And I can only find the solution of this fact, by considering that all our dancing masters—I beg their pardon, *Professors of Dancing*—are petty French teachers, such as might perhaps teach in their country, the village clowns; but have perhaps never ventured in an elegant Ball or polite party.

The other amusements of this town are occasional Concerts, Performances of Conjurors, and sometimes the Theatre—Yes, there is a Theatre here, but it opens only for a few weeks or months in the year, and is never well attended—Many Presbyterians and Baptists scruple to go there—The Concerts are generally pitiful both for singing and performing; but they please those who have seen no better.

You have asked me to give you my opinion of the fashionable Belles and Beaux of this town—I might have a great deal to say about them; but I must now speak of them in general terms—I may perhaps descend to particulars in a future letter—Upon the whole the Belles of Lexington (and in Kentucky in general) are pretty and amiable; but deficient in grace and blandishments—None can claim to possess a high share of personal beauty; but on the other part none can be called homely and very few are plain. Although they do not always acquire all the most needful accomplishments, yet many are found without deficiency on that score.—But what must be stated, and is greatly to their honor, consists in their minds being often adorned with secret beauties, not easily detected at the first glance; but which reveal themselves on a more intimate acquaintance. I do not mean to say that they are all such. There are even a few coquettes among them; and some fewer, who have the misfortune of a shallow mind—But they are few, and exceptions rather than fair examples—Many are modest, unassuming, and withall gifted with the quickest perceptions and happiest conceptions—I know several who are scholars, have studied several ancient and modern languages, acquired some knowledge of history, literature and sciences, can perform on the piano, sing, draw, &c. are fond of reading, have a good memory, and possess besides all the most enviable and peculiar qualifications of our sex, crowning the whole with a gentle temper and the best feelings.

It is natural that in a town, where so many young men resort for classical instruction, the young ladies should strive to rival them in acquirements. This emulation is very useful to both sexes. We know well that men do not like to have wives, wiser or more enlightened than themselves; whence elsewhere our sex is compelled to keep rather beneath than above men—But here where no such danger exists and where learning begins to be fashionable, the ladies are not afraid to overstep or overreach their future partners: whence results the happy and mutual inclination of improving the mind.

The young Beaux are with us pretty much as elsewhere—We have here fops as usual to match our coquettes, and even a couple of real fools; but we have also some very clever and amiable young men, able to converse upon almost every subject and who would be deemed ornaments of society, any where—I am however sorry to perceive that they do not constitute the majority:

real worth appears to be in the minority as yet among the male sex, while in ours it forms already the majority. We meet in company with some very insignificant beings, and although they are somewhat reserved in our presence, I understand that they are often very rude and uncivil out of the immediate sight of their Belles. Some of them indulge in dissipation and those dirty practices of chewing Tobacco, &c. I wish that a general conspiracy against this vile and baneful habit, could be formed by our sex, and I should have no objection to be at the head of it.

I cannot answer now your enquiries respecting Transylvania University. It is thus that they call the University of this town—A very awkward name I always thought—It means beyond the woods. A name meaning in the middle of the woods would have been better, or *Transmontana* which means beyond the mountains—But I perceive that I become a learned critic; this lot must be left to the great Critics and Reviewers of the age, who have assumed the sway of the modern Republic of Letters—I shall however write you soon, another letter on the Literary Institutions and Personages of this *Western Athens*, but I hope that you will not divulge my letter, or at least what may be rather too pointed—I do not want to quarrel with our great men and little folks.

LAVINIA.

Lexington, —— 1820.

A View of some American Universities and Colleges in 1820.

1. HARVARD UNIVERSITY, at Cambridge, in Massachusetts, is the oldest, richest and principal Institution for public instruction in the United States. It was first instituted as an Academic free school in 1636, called Harvard College in 1638, and chartered in 1650. It consisted in 1820, of twelve buildings; had 33 teachers and 386 students, divided in four faculties, as follows:

1 President,
19 Professors,
13 Tutors, Assistants, Proctors,
33 Theological Students, [&c.
13 Law Students,
54 Medical Students,
286 Collegians or Undergraduates.

Its library contains 25,000 volumes; it has a Museum and a Botanical Garden; an annual income of nearly $45 000, besides a fund of $5000 for indigent students.

2. DARMOUTH COLLEGE, at Hanover, in New Hampshire, had in October 1820, 11 teachers and 220 students, divided in two faculties, viz:

1 President,
8 Professors,
2 Tutors,
74 Medical Students,
146 Collegians.

Its Library contains 12,000 volumes. It was founded in 1769.

3. UNIVERSITY OF NORTH-CAROLINA, at Chapel-Hill, was instituted in 1791, and went into operation in 1796. It is as yet a mere college; it reckoned in 1820, 7 teachers and 127 students, all collegians. The teachers were one president, four professors and two tutors. It has only one faculty.

4. YALE COLLEGE at New Haven in Connecticut, was founded in 1700 at Killingsworth; but removed to New Haven in 1718 and named after Gov. Yale, its principal benefactor. It had in November 1820, 3 buildings, 2 faculties, 9 professors and 281 students, of which 62 were Med-

ical students. It had a Library of 7000 volumes.

5. UNION COLLEGE, at Schenectady in New York, had in October, 1820, 2 colleges, 7 professors and 264 students.

W. M.

6. Transylvania University.

THIS institution, which is the oldest in the Western States, was established ever since 1784; but has only been put on a respectable footing in 1818 and 1819, it reckoned 235 students on the 1st January, 1820 and 270 on the 1st January, 1821; as follows:

	1820	1821
Medical Students,	34	94
Collegiate Students,	102	106
Academical Students,	99	70
Total,	235	270

It had in 1820, 8 Professors and 6 Tutors, while it has now 10 Professors and 2 Tutors. A faculty of Law and another of Theology, will soon be established.

The actual Professors are

Rev. H. HOLLEY, President, who teaches the Philosophy of the human mind, Moral Philosophy, Civil Policy, Rhetoric, Logic and Philosophical Grammar.

Rev. R. H. BISHOP. Prof. of Natural Philosophy and History.

C. S. RAFINESQUE, Prof. of Botany, Natural History and Modern Languages.

J. ROCHE, Prof. of Ancient Languages.

J. A. JENKINS, Prof. of Mathematics.

Dr. CH. CALDWELL, Dean of the Medical Faculty. Prof. of the Institutes of Medicine and Materia Medica.

Dr. S. BROWN, Prof. of the Practice of Medicine.

Dr. B. W. DUDLEY, Prof. of Anatomy and Surgery.

Dr. W. H. RICHARDSON, Prof. of Obstetrics and the Diseases of Women and Children.

Rev. Dr. J. BLYTHE, Prof. of Chemistry.

Tutors.—Messrs. COLEMAN and MOREHEAD.

W. M.

I must see another proof

THE WESTERN MUSES,

OR,

ORIGINAL POETRY.

WE are induced to give a large share of Poetical effusions, hoping thereby to please our fair readers, and to atone or compensate for the more serious parts of our labors.

We have also considered that the Western States are surrounded on the south west, north west and north east, by a population of French origin, and as we hope that our sheets will reach them, we have endeavored to gratify them by introducing several specimens of French Poetry: but as your types have no accents, they must be supplied by the readers.

It is often supposed that by endeavoring to please every body, you please nobody; but the mere attempt to please ought at least to deserve an indulgent gratitude.

Les Rives de L'Ohio.

POEME EN DEUX CHANTS.

PREMIER CHANT.

Aux bornes du couchant, l'on voit naitre l'Aurore,
Annonce d'un beau jour qui s'empresse d'eclore.
Muses qui m'inspirez, reclamez y vos droits,
Et des monts de la Grece accourez a ma voix.
Du Levant au couchant, j'ai parcouru la Terre:
De l'Ocean fougueux, j'ai brave la colere.
Chez cent peuples divers, j'ai cherche le bonheur,
Il fuyait loin de moi sous un masque trompeur.
Parvenu sur les bords de la belle Riviere,(1)
D'un peuple encor naissant, la brillante carriere
Offre a mes yeux surpris, un spectacle nouveau,
Des hommes fortunes et non un vil troupeau.
Champs fleuris, Bois charmans, oh rives fortunees!
Quel eclat embellit vos fertiles vallees!
Tout invite a jouir, a gouter le bonheur;
Une idee si douce epanouit mon cœur.
Dans les sombres forets entourant vos campagnes,
Sur les mousseux rochers de vos vertes montagnes,
Mille aimables objets, ont assaillis mes sens,
M'ont peint les doux plaisirs et des tableaux rians.
Je n'appercois partout, qu'une belle nature,
Reclamant sans delai, les loix de la culture.
Les sauvages tribus, qui parcouraient ces lieux,
En ont fuit pour toujours, leur ont fait leurs adieux.
Les bras des laboureurs ont abattu les chenes,
La charrue a passe sur les debris des frenes.

Du sein de la foret des villages nombreux
Ont paru tout a coup, des batimens pompeux
S' elevent a l' envi, des villes florissantes,
Des navires fumans et des cites naissantes(2)
S' annoncent a nos yeux etonnes et surpris.
Quels progres surprenans ! Qui se serait promis
Un succes si rapide, et dans si peu d' annees !
Peuples de l'occident, ah de vos destinees !
Ce n' est quele prelude, et durant le long cours
D' un heureux avenir, ou votre vœu concours
Un Empire puissant, vous devra l' existence,
Une heureuse Union prendra de vous naissance.
Guides par la Sagesse on ne peut limiter
Cette noble carriere ou vous devez viser.
Car d' un peuple eclaire vous serez les ancetres,
Des peuples avilis vous deviendrez les maitres.
Mais par la noble voie des vertus, des bienfaits
Plutot que par le fer, le crime et les forfaits.
Vous saurez acquerir la veritable gloire
En eclairant le monde et brillant dans l'histoire.
Car ce n' est pas toujours, par des seuls faits pompeux,
Que l' on obtient ce droit, et ce titre glorieux.
Sachez bien vous garder des acces de folie,
Mais surtout de la guerre, effrayante manie :
Soyez libres, egaux, pour toujours, par les loix,
Libres de prejuges, egaux en tous vos droits.
Vous etes destines a fonder un Empire
Base sur le bonheur, que tout homme desire.
Bannissez de chez vous, le crime et le remords,
Adorez la vertu, que chacun soit d' accord
Pour subjuguer enfin l' ignorance et le vice.
Declarez vous amis de la sainte justice :
Qu' elle regne chez vous terrasse les abus
Parmi tous les enfans de vos vastes tribus.
Vous avez transportes au sein del 'Amerique
La science et la paix, les arts et leur rubrique :
Terminez votre ouvrage, elevez tous vos voix ;
Et pour vous rendre heureux, affermissez vos loix ;
Par ce soin graduel, regime salutaire,
Vous ferez le bonheur de vos fils, de la Terre.
Tels sont les sentimens que m' inspira l' Ohio :
Parvenu sur ses bords, et glissant sur ses eaux,
J'admirais les beaux lieux, qu' a plaisir il arrose
Ou croissaient a l' envi, la violette et la rose.
Si Delille pouvait me preter ses pinceaux,(3)
Que j'aimerais a peindre et chanter vos coteaux
Embellis tour a tour par les fleurs, la verdure
Ornes de parcs charmans, dont la verte parure
Emule ces jardins, qu' ailleurs avec grand soin
L' on plante et l' on cultive aux champs ; mais sans besoin.
Je chanterais surtout les nymphes semillantes
De ces lieux enchanteurs, et mes chansons galantes
Tacheraient sans flatter, de leur peindre l' amour
Que leurs charmes divins, inspirent tour a tour.

Lexington, Mai 1820.

NOTES.

1. L' Ohio s' appelle aussi la *Belle Riviere* en francais.
2. *Des navires fumans*—ce sont les Steam Boats
3. *Delille*—celebre poete francais, auteur de l' homme des champs, les Regnes de la nature &c. : il a ete surnomme le Virgile francais.

Couplet pour Silvie.

Air—*Je suis Lindor, &c.*

Mon cœur adore une jeune bergere,
Elle a quinze ans, c'est l' age de l' amour
Joli minois et demarche legere,
Souris divin et taille faite au tour.
Tous ses attraits sont combines pour plaire,
Pour inspirer le plus sincere amour.
Je suis force de l' aimer et me taire ;
Puisse son cœur me deviner un jour !
Apprendre enfin ce que le mien espere,
Et me flatter du plus tendre retour.

Lexington, Mai 1820. C. S. R.

A MELODY.

My heart is gone.

TO LAURA.

My heart is gone,
And towards thee
It must have flown ;
Do then tell me
If it has reach'd thy own ?
If thou shalt see,
A blazing heart
Flutt'ring near thine
It must be mine,
That will not part
From thy fair side.
Do not turn it aside ;
But open thy breast
And give it rest.
Thy heart must seek
The love of mine ;
Mine will soon speak
Of love to thine.
How delightful !
And how blissful !
Will be their fate
In such a happy state !

M. T.

A MELODY.

The Man I'll Love.

The man I'll love need not be tall,
He need'nt be fair, nor in a ball
Jingle and outshine all our dandies ;
But he must know the whole duties
Of social life and honesty :
His heart must feel, love and pity.
Sensible inform'd and yet not vain,
Such man from me will love obtain.
The man I'll love, must not be proud,
And he must not talk fast and loud ;
In all his words, he must convey
His heart and soul, truth's fairest ray :
His face must beam, with gentle features,
His mind controul his best pleasures,
And of his fate must not complain,
Such man from me will love obtain.

VIRGINIA.

LA DOUBLE AURORE.

Ode Anacreontique.

Accourez aux accens de ma lyre
Jeunes filles de ces coteaux :
Car c'est pour vous queje soupire
Et que j'e[illegible] mes chalumeaux.

Ecoutez les chansons que m'inspire
La beaute' qui regne en ces lieux,
C'est pour elle que je respire,
C'est elle qui me rend heureux.

Mon amour n' aurait su lui de'plaire ;
Car nul n' eprouva telle ardeur :
Un tel amour ne peut se taire :
Il me faut chanter mon bonheur.

C'est aux bois, aux vallons aux montagnes
Que j'annonce mon tendre espoir:
Et parmi ces vertes campagnes
Je me plais a le recevoir.

Cherchez y la beaute' que j'adore
Jeunes nymphes de nos vallons :
Amenez-moi la belle AURORE
Pour qui sont toutes mes chansons.

Mais helas ! mon coeur en vain l'implore
De couronner enfin mes feux :

Puissiez vous m' annoncer l'AURORE
Dujour qui doit combler mes voeux.

Terminez les maux que je deplore
Et conspirez en ma faveur.
Conduisez moi LA DOUBLE AURORE
Dont depend mon double bonheur:
C. S. R.

Et je verrai renaitre
Plus d' un astre radieux.

Que de ta voix touchante
J'entende les accens,
Que ton reveil m' enchante
Qu' il ravisse mes sens.
C. S. R. Oct. 1819.

LE REVEIL D' IRMA.

Ode Anacreontique.

Je vois naitre l' Aurore,
Irma, reveille toi :
Epouse que j' adore
Entends ma douce voix.

Avec ses doigts de roses
Elle annonce le jour :
Sur tes levres mi-closes
Je ravis un bon-jour.

Tu souris, ah ma chere !
Tu brilles de plaisir :
J'aime mieux ta colere
Prelude du desir.

Car des que je t' offense
Je te donnes raison,
Et de ton indulgence
J'obtiens un doux pardon.

Le Soleil va paraitre,
Au jour ouvre les yeux,

L' Enfant et l' Epouse Endormis.

ROMANCE.

Air de la Romance de J. J. Rousseau, Je l' ai plante' &c.

Enfant cheri de mon amie
Repose en paix dans ton berceau :
Car tu lui dois plus quelavie, } Bis
Et tu lui dois ce doux repos. }

Gage aimable de ma tendresse,
Charmans objets de mon amour,
Heureux espoir de ma vieillesse, } Bis
Je veille sur vous tour a tour. }

Je sens mon bonheur et l' ivresse
D' etre bon pere, heureux Epoux :
Je vous promets une caresse, } Bis
Tant mon devoir me semble doux. }

Fuyez Zephirs, faites silence,
Ne troublez point leur doux sommeil.
Tout en soupirant ma romance, } Bis
J'attendrai leur prochain reveil. }
C. S. R. Oct. 1819.

Preceptes Moraux.

1. *Le Secret d' etre heureux.*

Ami veux tu savoir le secret d' etre heureux ?
Sois prudent et sois sage, en tous tems, en tous lieux,
Acquiers toi des amis, aime femme charmante
Tache de la choisir bien douce et complaisante ;
Pratique la vertu, sois content de ton sort,
Et tu seras heureux sans peine et sans effort.

2. *Amour et Jalousie.*

Sans amour point de jalousie,
Sans jalousie point d' amour ;
Plaisir, tourment de notre vie,
Ils nous agitent tour a tour :
Fuyons l' exces de leur folie,
N' ayons jamais sans doux retour

C. S. R.

The Blind Lover.

What is beauty to me? a mere shadow
Or even less; my sightless eyes cant glow
On forms unknown, and on bright charms unseen;
But all my other senses are sharp and keen.
By them I love, my love flows from the heart,
Unlike the transient flash that eyes impart:
With fleeting beauties, it does'nt rise and die.
'Tis of a deeper cast, and to deny
To my sad fate, this sentiment so pure,
Would be a slander on God and Nature.
Yes I can love, and I do love indeed,
No sharp eyed swain, could such a love exceed.
For her I sigh, whom my fancy has drest
In charms invisible, yet stor'd in my breast:
Her voice is sweet and clear, the nightingales
Would please me less; a sign that seldom fails
Of a good heart, and a soul that will feel
Pity and love, or a treasure conceal
For the unhappy man, who doats on her
And whose soul to her's, is link'd forever.
When she sings for me, silent I admire
My heart flies to my ears, and they conspire
To feed my restless pain. I must contrive
To tell my timid wishes; and I shall strive
To take her hand; from my heart to my lip
The secret I'll convey; anxious to reap
Or ascertain my happy doom and fate
I'll speak and crave. Let me anticipate
Her joyful answer, which will at once seal
The bliss I seek. Her sweet lips will reveal
A store of love, declare she did'nt disdain
The tender thoughts of the loving blind man.

MILTON.

Lines to Maria.

Who asked me if I should like to Love in a Cottage.

By thee inspired I frame the ready lay
Which truth alone would prompt my heart to say.
Oh yes! sweet maid, whom all the world should love
With thee I'd wish a cottage life to prove.
If warmest love can feed the mind and soul,
Let us repair where purling streamlets roll.
Far from the world, its busy bustling care,
With mingling hearts, a tender bliss we'll share.
Each happy day within the blooming bower
We'll feel the joys of love and sing its power.

CONSTANTINE.

To Silvia.

Unhappy fate! what could my Silvia fear?
When she refus'd my earnest wish to hear.

Silvia forbear! hear for once and decide:
By thy sweet smiles do not my heart deride.
As an outcast, let me from thee depart,
My heart must weep, when from thine it may part,
And for his loss, in direful sorrow mourn.
But far from thee, and thy bright eyes, an Urn
I will erect, thy name on it engrave,
And when I die, carry it to my grave.
But if to please, should be my blissful fate,
The brightest joys, which from love emanate
Will then be felt, and through my heart revealed,
While in thy own, let them become concealed. J E.

TRIFLES

By Billy Tickler of Frankfort.

1.

To my Readers.

It is true, my name is Billy;
But beware to call me silly:
If you do, I'll shoot an arrow
Upon you, and to your sorrow;
It 'll be sharp, and will go deep,
Hold your tongues or fall asleep.

2.

What's a Trifle?

What's a trifle? a feather of th' mind
Pluck'd by wit or nonsense, it flies
And makes us laugh until it dies:
But when 'tis gone at last we find
That if we have been careless,
Our mind will be featherless.

3.

What is Life?

What is life? it is a mere jest,
It comes and goes, it has no rest.
At both we laugh, we smile and sneer
Or else we ache and drop a tear.

4.

To Laura.

Yesterday I dreamt of you;
But you know, that's nothing new:
Yet I wish—such dreams were few.

5.

The Love-bean.

Emma gave me a Love-bean;
I wish her love it had been:
Yet I keep it for keepsake,
Perhaps 'twill cure my heart-ache.

6.

For Jane.

Jane has two beaux,
But she scorns both:
When they are gone
She will have none.

7.

The Mammoth Bank.

We have at last a mammoth bank
Which is not a mere blank,
It might be so, if silver was
Its mainstaff, but whereas
'Twill be black ink, stamp'd on white rags
Instead of dollars's bags
It must be call'd a mammoth bank
Which is not a mere blank.

B. T.

Frankfort, December, 1820.

ITALIAN STANZAS.

Un Consiglio d' Amore.

1.

Sia maledetta
Quella civetta:
Non gli dar retta,
Presto t' affretta:
Convien fuggir.

2.

Nessun rossore,
Nessun ardore,
Non ha nel core.
Finge l' Amore
Sol per tradir.

3.

Cerca l' amante
Dolce costante:
L' amor galante
Divien furfante
Ci fa morir.

COSTANTINO.

EPIGRAMS.

1.

Peggy does right to turn her face;
I love sweet ones it is well known,
And when I look beyond her own,
My eyes are spared the sad disgrace
To light perchance or in the way
Upon the picture of a cloudy day.

BOB CLICKER.

2.

Jane don't cry; but
I love you not.
You need not fear
That I should try
Your smiles to buy;
They are *too dear.*

B. CLICKER.

3.

Flora is fair, no one denies,
But what avails if her heart lies.

RICHARD FAIRPOINT.

4.

Jane was a sweet lump of sugar candy;
But she melted in th' mouth of a dandy!

R. FAIRPOINT.

5.

Ladon is vain, and is thought wise:
It can't of course be otherwise,
Since his own lips tell us likewise.

R. FAIRPOINT.

6.

Cleon and Symmes are brothers as you say;
But what's th' difference between them pray?
While Symmes believes in *hollow spheres,*
Brother Cleon only dares
To believe in *hollow brains*;
He need not take so many pains
To prove a fact so well known:
Let him merely show his own.

Cincinnati. P. HYSTRIX, M. D.

7.

Doctor Calomel for God's sake!
Could you cure my head-ache?
To be sure, you need but take
Of my nostrum without mistake,
And I put my life at stake
That your own you may forsake.

Louisville. B. CAREFUL, M. D.

8.

James your kiss was far from sweet,
And sure it smelt of glass and leaf:
Yet I am glad to have had it:
But ask another and I'll be deaf.
The man who loves the bottle and quid,
To crave my love will have no need.

DELIA SWEETLIPS.

THE ELYSIAN DREAM.

To my Sister.

A dream I had the other day,
'Twill make you laugh my love to hear it;
So strangely wild was fancy's play,
No maniac's vision e'er came near it.

I dreamt (how weak!) I might confide
With unsuspecting, full reliance,
Upon the friend I long had tried,
And bid the power of change defiance.

I thought that *truth* the world possest,
That *honor* was not quite a notion,
I thought the *hand* that warmly prest,
Was prompted by some *kind emotion.*

I thought the *smile* that lights the *face,*
Had with the *heart* some slight connexion,
I fancied that the fond *embrace,*
Was still the offspring of *affection.*

I thought that *woman's heart* was made
The seat of *kind* and *generous* passion;
And not by *envious feelings* swayed,
The cheated fool of *wealth* and *fashion.*

I thought the *glance* from *Alfred's eye,*
The *smile* o'er every feature stealing,
The *honest blush*—the *deep drawn sigh*—
Betrayed a *soul* of *noblest feeling.*

Thus *friendship, honor, truth* and *love,*
Conspired to form my dream Elysian:
And long did vagrant fancy rove,
And revel in the blissful vision.

But dreams, of texture all too slight,
Soon by reality are banished;
The happy phantoms took their flight,
I woke to *truth*—and all were vanished.

I looked in lost despondence round,
To seek the forms my dream had painted;
A *cold* and *heartless* world I found,
By *love* unblest, by *falsehood* tainted

To *friendship* and to *feeling* dead,
A waste of *folly* and *confusion,*
I sorrow'd o'er the vision fled,
And wish'd again my blest delusion.

And shall it not return again?
Return to *cheat* and *bless* me? never!
No! the fond wish is wild and vain,
Dreams vanished once—are gone forever.

ELEONORA.

To the Sun.

Source of joy, of heat, of light!
Unrival'd orb, supremely bright,
Nothing gives, like thee, delight!

ELEONORA.

To the Moon.

Maiden beauty, pale but bright,
Orb reflecting solar light,
Often varying, thou art seen,
Night salutes thee as her queen.

ELEONORA.

On the loss of a Friend.

I have done—nor the loss of a friend can regret,
Who even in favoring managed to fret me;
Do you think I'm a *time-piece*, to *click* how-e'er *set*,
If I am, I'll be hiss'd if an *Idiot* shall *set* me!

ELEONORA.

One word and only one.

TO ELIZA.

God bless you with solicitude,
Breath'd from a heart that's kind & good,
Might melt, methinks, the every prude,
And touch e'en her with feelings human—
Then why should not Eliza know,
A friendly heart salutes her so?
And warmly wishes—God bless you!
And keep you! lovely, charming woman!

OSCAR.

To Miss M—, who wished to know what she should read.

Would you then so fresh and ruddy,
Wanting of perfection nought,
Dull that eye of light—with study
Cloud that brow of love—with thought?

Fie, oh fie, 'twere profanation,
You for pastime may read *books*,
But, if you wan't information,
Pretty dear! you must read *looks*.

OSCAR.

You have forgot to put the ~~long~~ Errata